

103
CLEANUP OF THE TIJUANA RIVER

(103-65)

Y 4.P 96/11:103-65

Cleanup of the Tijuana River, (103-...

HEARING
BEFORE THE
SUBCOMMITTEE ON
INVESTIGATIONS AND OVERSIGHT
OF THE
COMMITTEE ON
PUBLIC WORKS AND TRANSPORTATION
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS
SECOND SESSION

APRIL 13, 1994

Printed for the use of the
Committee on Public Works and Transportation



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CLEANUP OF THE TIJUANA RIVER

WEDNESDAY, APRIL 13, 1994

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT,
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:35 a.m. in room 2253, Rayburn House Office Building, Hon. Robert A. Borski (chairman of the subcommittee) presiding.

Mr. BORSKI. The subcommittee will come to order.

The subcommittee today will be reviewing the issue of treating sewage from Tijuana, Mexico, a question of environmental policy and international diplomacy that has plagued the San Diego area for decades. I want to thank Congressman Bob Filner of California for bringing this important matter to the subcommittee's attention and for providing such great assistance for our inquiry.

It has been 11 years since the U.S. and Mexico agreed to build an international plant to treat the Tijuana sewage. We have appropriated \$187 million for the construction of the plant. Yet, despite the work of the Federal, State, and local agencies, as well as international agencies, no plant exists.

The question before the subcommittee is why, after all the effort that has gone into the negotiations and after all the money that has been made available, nothing has happened to protect the people of San Diego from the untreated sewage of Tijuana.

Just as too many cooks spoil the broth, too many government agencies can prevent action on any issue, anyplace, anytime. With all of these agencies involved, with many of them having veto power and all with conflicting priorities, it is almost guaranteed that no action will take place. This project has been overwhelmed by disputes over technical specifications and cost estimates, followed by a continuing demand for studies, justifications, and renegotiations. That is not the way to get things done.

At today's hearing we want to find out whether the problems that have delayed action for the past decade have been resolved and whether the people in charge are ready to move forward with building the plant. The question remains, what is delaying the treatment plant, and what must be done to cut through the bureaucracy and red tape to get action on a fair and effective proposal to protect the waters of San Diego?

I'd now like to yield to the distinguished ranking Member, the gentleman from Oklahoma, Mr. Inhofe.

Mr. INHOFE. I thank you, Mr. Chairman. Thank you for scheduling this hearing. Over the last several months, I've been thoroughly

briefed by our colleagues Bob Filner, Duke Cunningham, and Duncan Hunter on the need to clean up the Tijuana River. All three of these represent areas in San Diego that are affected and have been working on resolving the problem for several years.

I doubt that there is a more persuasive and ardent advocate for the Tijuana River than Duke Cunningham, and, frankly, I'll be glad when this issue is resolved so that Duke and I can talk about something else.

Although he's unable to be here this morning, he's assured me that Dr. Gunaji from the International Boundary and Water Commission will be able to update the subcommittee on the work that has been done and what needs to be done to bring this project to completion.

I understand that the citizens of San Diego have been struggling with this issue for over 40 years. Clearly, something must be done, and I hope our efforts today will assist in moving this project forward.

Again, I thank you, Mr. Chairman, and, as always, look forward to a productive session.

Mr. BORSKI. Before we proceed, I would like to place the statement of Hon. Norman Y. Mineta into the record.

[The prepared statement of Mr. Mineta follows:]

NORMAN Y. MINETA, CHAIR

COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT

HEARING ON THE CLEANUP OF THE TIJUANA RIVER

APRIL 13, 1994

The subject of today's hearing, the cleanup of the Tijuana River, is a classic example of why Congressional oversight is a critical element of effective democratic government.

This project--the construction of an international wastewater treatment plant to clean up the sewage flowing down the Tijuana River--was first agreed to with Mexico in 1990, and it was expected at the time that the project would take four years to complete. Well here it is, four years later, and we have still not broken ground for construction of the treatment plant.

There have been several reasons for the delays. First, several agencies have been assigned responsibilities for this plant, so there has been no single agency with clear accountability and responsibility for the project. As disagreements arose over the technical specifications of the plant, there was no simple way of resolving these disputes.

Second, each of the agencies involved has had its own statute to enforce, and the statutes have to some extent been at cross purposes with one another. EPA and FWS have negotiated for several years to resolve the question of how to simultaneously enforce both the Clean Water Act and the Endangered Species Act, and this issue is still not fully resolved.

Third, the City of San Diego has changed its plans about whether to build its own plant adjacent to the international plant, and these changes in plans have required IBWC to revise its plans for the international plant.

And fourth, IBWC has followed some contracting practices that may be appropriate in another context but that have probably slowed this project down.

Clearly, there is a need for closer oversight of this project both from the Congress and from senior executive branch officials. We could argue about which factors have been most important in delaying the project, but the important point now is to make sure the project stays on track in the future. The agencies have established a very ambitious schedule for the next two years to get the secondary treatment plant completed. If the agencies involved exhibit the same lack of teamwork in the future that they have in the past, these milestones will not be met. We want to make sure the agencies work together as a team in the future.

I want to salute my colleague, Bob Filner, for bringing this issue to our attention, and Congressman Borski for calling this hearing. I hope today's testimony helps to break the logjam on this project and bring relief to the people of the Tijuana Valley.

Mr. BORSKI. The Chair now recognizes the distinguished gentleman from California, Mr. Filner.

Mr. FILNER. Thank you, Mr. Chairman, and I want to thank you, particularly, and Mr. Inhofe for allowing us to have this hearing today, and, of course, the Chairman of our full committee, Chairman Mineta. You've provided the staff resources necessary that we can have a productive morning. Your staff, led by Jack Wells, the director; Charlie Ziegler, the minority counsel; and Mary Giovinazzo, have done a tremendous job in getting us all prepared and doing the work that is so necessary.

Mr. Inhofe mentioned three Congresspeople from San Diego. We will hear from Congresswoman Schenk, who also has part of the border and is very much involved in this whole effort to make sure we remedy this problem, and we'll hear from Ms. Schenk in a few minutes.

So I'm grateful that all the agencies are here today and have accepted our invitation. This is a very important hearing. It is important to the thousands of people in both Tijuana and San Diego who are forced to live with an open sewer that runs through our communities, and it is important to those people who live in daily fear of an epidemic of malaria or encephalitis. Hopefully, this hearing will result in a renewed commitment by all of us involved to solve this crisis as quickly as possible.

But this is not a parochial problem. It is also, as the Chairman pointed out, a matter of international diplomacy. In fact, I see it as maybe the first test of the new environment that might be created by the NAFTA agreement. Many of us worried about whether there would be a true solution to infrastructure problems, whether there would be resources devoted to these border problems in the wake of NAFTA, or whether we would just have to endure a worsened situation. I think this is an early test case of how NAFTA and the improved relationship between our two nations will in fact help the quality of life for all members of the public.

I think many of you know the problem. We are living with raw sewage flowing downhill from Mexico to the United States. A few years ago, just to give you a little personal sense of what this problem means to my constituents, I walked into a high school cafeteria that serves more than 2,000 students. It's about half a mile from the Tijuana River. Well, if you've ever been at a public event where you had one of those chemical portable toilets around, the aroma in that cafeteria due to the situation was identical to that of that portable toilet.

This has been going on for decades, and my constituents—tens of thousands of them—have been unable to enjoy many of the things that we all take for granted. No backyard barbecues, no stroll around the block in the early evening, and seemingly permanent beach closures. It is deplorable, and it sickens me to know that the technology to solve this emergency has been available to us all along.

What we need, of course, is the will to solve the problem. We have the solution: an international wastewater treatment plant. Unfortunately, we have not begun construction, and we want to look at why that has occurred and renew our commitment to solving it quickly. We want no more delays.

I think in the past few months we have developed a new sense of commitment to resolve this environmental disaster. President Clinton has publicly committed to resolving our situation, Congress has appropriated the funding, this committee has appropriated the necessary staff resources, and the agencies responsible who we'll hear from today have developed an accelerated construction schedule that proposes to give us relief by the end of 1995. I'm encouraged by these new developments. I'm hopeful we will move forward and that we will meet this construction schedule.

Just one last attempt to make this as personal as I can. I have read through some of the testimony that you'll be giving today, and what I read is in some cases a very technical description of the mission of each agency and what each one wants to do, and that each agency is committed to its goals. I want everybody to keep in mind, because I'm not sure I read it in any of the testimony, that there are tens of thousands of people involved here. It's not just a mission that each agency has to accomplish. We're talking about literally the health and safety of thousands and thousands of people. I didn't get a sense of feeling that people are involved in this. People who have to face their kids growing up with asthma, and the mosquitoes constantly in their neighborhoods. And I get a sense that each agency is looking at other agencies as somehow responsible for the problem, while your own agency is performing its own mission on time and within the framework that you have been charged with.

We've got to figure out a way not only to remember the people involved, but to try to get the cooperation of all the agencies. I'm looking forward to that, I'm pleased to be part of it, and I think we all want to be part of a successful completion of this project.

Thank you again, Mr. Chairman.

Mr. BORSKI. The Chair thanks the gentleman.

The gentleman from New Hampshire, Mr. Zelif.

Mr. ZELIFF. Mr. Chairman, I'd like to thank you for calling this hearing this morning to examine the proposed international wastewater treatment plant and outfall facilities to be constructed in San Diego, California. This project, which represents a joint effort between the United States and Mexico, is extremely important in protecting the coastal areas of San Diego from raw sewage flows from Mexico.

Unfortunately, what should have been completed this year may take until 1998 or later to fully complete. I'm hoping that this hearing will shed some light on the reasons for the delay and what we need to do to get the project moving again.

I'm also interested in hearing the comments from our witnesses regarding the possibility of private sector involvement in this project. Is private ownership or operation of this wastewater treatment facility being considered as an option? Would this be a cost-effective alternative to consider, in view of the many governmental agencies involved and the lack of apparent coordination at this point? We need accountability, and we need the assigning of responsibility.

The U.S. Government, Mexico, the City of San Diego, and the State of California are all expected to bear a portion of the cost of

this project. The taxpayers deserve to know that we're putting their money to the best use possible.

I appreciate the opportunity to hear the testimony and look forward to getting some answers. I'm going to have to leave, but I would like to ask unanimous consent to put some questions in the record, if that's possible.

Mr. BORSKI. Without objection, so ordered.

Mr. ZELIFF. Thank you.

Mr. BORSKI. The gentleman from Illinois, Mr. Poshard.

Mr. POSHARD. Thank you, Mr. Chairman. I think all of us understand that the problem of wastewater treatment is one of the most pressing problems that we have in this Nation. I know even in the small towns and villages that I represent in a large rural district, it's a very complicated issue in almost every case, and I can't imagine how complicated the scope of this issue has become.

Mr. Filner has been an outstanding advocate for getting this committee involved and for pressing for solutions to this problem, and I just want to thank him and thank you, Mr. Chairman. I'm hopeful that this hearing will act as a catalyst for pushing the solution to this problem forward and perhaps getting it done in the very near future.

Mr. BORSKI. The Chair thanks the gentleman.

This morning we'd like to welcome our first witness, the Honorable Lynn Schenk, the Representative from the 49th District in California.

Congresswoman Schenk.

TESTIMONY OF HON. LYNN SCHENK, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Ms. SCHENK. Thank you, Mr. Chairman, and good morning. I want to thank you and the Chairman of the full committee, Mr. Mineta, for working with our colleague, my friend and my neighbor, Bob Filner, to hold this hearing on an issue that is of such exceptional importance to our constituents and, indeed, to all the constituents of San Diego County.

Before I begin, though, I do want to say a very special note of thank-you to Congressman Bob Filner. He has struggled with this issue for many, many years as a San Diego city councilman, and, frankly, too often he was alone in that struggle. Yes, we had our share of grand-standing local politicians who took advantage of every photo opportunity but really accomplished very little. Bob Filner worked hard for real and effective solutions.

This issue, as you all know, has troubled San Diego for many decades; however, it's really been in about the past 12 to 15 years that it's become a regular plague visited upon the citizens of south San Diego County. As Tijuana and its suburbs have grown, so have the millions of gallons of raw sewage flowing across the border. When Tijuana flushes its many toilets, the waste flows across the border into Mr. Filner's district and continues on its way until it lands in the ocean waters and the beaches of my district in the Cities of Imperial Beach and Coronado. Of course, the latter is a new favorite vacation spot of the President and the First Lady, but many other less famous people also enjoy coming to this area for vacations.

These are tourist-oriented communities whose economies are severely affected when beaches close for weeks at a time because there's raw sewage floating about. If you've never seen raw sewage on a beach, consider yourself lucky, because it is disgusting.

The citizens I represent and the citizens that Mr. Filner represents just deserve better. Not only is their economy impaired, but so is their health, and, frankly, no American should be subjected to this primitive quality of life.

Let me add that this problem has festered for years, but not because of partisan bickering or gridlock. For most of this period in question, San Diego was represented by Republican mayors, a Republican Senator who is now Governor, other Republican governors, a majority of Republicans in Congress and in local and city offices. But despite this partisan unity, no real progress was made until the beginning of last year.

A year ago last January, Southern California and Northern Baja California experienced a period of unusually heavy rains resulting in flooding in the Tijuana River Valley. These floods exacerbated the longstanding problems of what we euphemistically call "renegade sewage flows" from Mexico and brought a local border problem to national attention. Subsequently, with strenuous efforts on the part of Mr. Filner, myself, and a few others, some progress has been made.

As Mr. Filner pointed out, we even received both the personal and the public commitment from the President to give attention to this matter. We have a commitment from the IBWC and from the EPA to complete construction of the first phase of the international treatment plant by the end of 1995. We also have a commitment from the IBWC to put in place a facility to deal with the flows in the interim, to return them to Mexico until such time as the permanent plant is operational.

But we still feel very frustrated, because we have yet to see the first shovel put to dirt, the first physical evidence that something is being done to solve this problem. In other words, translating commitment into action.

One of the purposes of this hearing, as I understand it, is to review the history of our border sewage problems and the efforts—or, more appropriately, the lack thereof—to correct them. I believe, frankly, that there is plenty of blame to go around, especially to Federal agencies. But I hope that rather than spending too much time determining past culpability, we can evaluate these problems with an eye to expediting future solutions.

I have many questions, Mr. Chairman, and I hope that, with the unanimous consent of your committee, I can submit them for the record in the interest of time so that we can allow the witnesses here to testify.

Mr. BORSKI. Without objection, so ordered.

Ms. SCHENK. Thank you. You will be hearing from many individuals who have worked closely with the border sewage problem for many years. Some have traveled from San Diego and elsewhere to testify, and they bring with them knowledge of the situation at the border and experience with the technologies necessary to solve the problem.

Unfortunately, I, too, have my own committee hearing, and so I will have to leave, but I know that much useful information will be forthcoming so that we can finally get on with turning that dirt so that we can get the plant built.

So, again, Mr. Chairman, I thank you, I thank Mr. Mineta, but, above all, Mr. Filner for instigating this hearing, and I am certain that with increased congressional scrutiny, we can move quickly to resolve this. Thank you for your courtesy of allowing me to appear.

Mr. BORSKI. Well, thank you very much, Congresswoman Schenk. We do understand that you have another commitment, another meeting to get to, as most of us do around here, but we know this is a very important issue to you, and we appreciate your coming by and offering your testimony today.

Ms. SCHENK. Thank you.

Mr. BORSKI. There are no questions, I assume, of this witness? [No response.]

Mr. BORSKI. Thank you very much.

Ms. SCHENK. Thank you.

Mr. BORSKI. We'd like to welcome the witnesses on our second panel: Mr. Arturo Valenzuela, Deputy Assistant Secretary of Inter-American Affairs for the State Department, and Mr. Narendra Gunaji, the U.S. Commissioner for the International Boundary and Water Commission.

Gentlemen, if you would please stand and raise your right hand.

[Witnesses sworn.]

Mr. BORSKI. Thank you. You may be seated.

Let me, first of all, thank all our witnesses for appearing before the Subcommittee today. We have several witnesses to hear from, and I would ask each of you to limit your oral presentation to five minutes. Of course, your entire written statement will be presented and be part of the hearing record.

TESTIMONY OF HON. ARTURO VALENZUELA, DEPUTY ASSISTANT SECRETARY FOR INTER-AMERICAN AFFAIRS, U.S. DEPARTMENT OF STATE, WASHINGTON, DC; AND NARENDRA N. GUNAJI, U.S. COMMISSIONER, INTERNATIONAL BOUNDARY AND WATER COMMISSION, EL PASO, TX

Mr. VALENZUELA. Mr. Chairman, Members of the Subcommittee, I'm very honored to be here today. Since I assumed my duties as Deputy Assistant Secretary on January 10th of this year, I've been quite moved by the problem of Tijuana sewage, and I've appreciated very much the visits that I've had from members of the San Diego community, including Mayor Golding.

I firmly believe that it's important for us to fulfill the agreement reached in November 1993 between the Environmental Protection Agency and the International Boundary and Water Commission, with the concurrence of the State of California and the City of San Diego, to accelerate the construction of the planned Tijuana plant.

Today, in response to your request, I would like to present the Department of State's views on management issues associated with the Tijuana project since 1990. Let me begin by describing briefly the IBWC and discussing its relationship with the Department of State.

Department of State and the Mexican Secretariat of Foreign Relations, on behalf of the two governments, negotiated the form and responsibilities and authority of the modern-day IBWC in the Treaty of Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, also known as the 1944 Water Treaty. It's this treaty that reconstituted the IBWC, or the International Boundary and Water Commission, and it comes from a treaty of 1889.

The IBWC consists of a U.S. Section and a Mexican Section, each headed by a commissioner. The U.S. Section of the IBWC is not a constituent part of the Department of State and functions as an independent U.S. agency in many areas. It has its own financial management and personnel systems, its own regulations, directives, and procedures. The U.S. Section performs planning, design, contracting, operation, and maintenance of construction projects, subject to Federal laws and regulations, but quite independently of the Department of State.

Along with the Mexican Foreign Secretariat, the Department of State is responsible for government-to-government provisions of the 1944 Water Treaty, overseeing foreign policy-related activities of the commission, and reviewing and approving actions of the commission when the U.S. and Mexican sections function together as an international organization and when they deal with issues of foreign policy content.

The U.S. section's financial resources for salaries and expenses and for construction projects are provided through a separate segment of the Department of State's budget. The department audits the U.S. section's fiscal operations, most recently successfully in an audit on February 4, 1994.

The IBWC minute agreements are a unique and effective mechanism for developing commitments by the two governments to finance and construct needed engineering projects in the border areas. These minutes negotiated between the two commissioners take the form of recommendations to the two governments for measures to resolve specific international boundary and water problems. Once reviewed and approved by the two governments, IBWC minutes become binding international agreements and have traditionally been honored by both sides.

In recent years, the IBWC has contributed to the public health of the border by working with environmental agencies in both countries to resolve border sanitation problems such as those in Tijuana. The Department of State was involved in reviewing and approving the international solution to the Tijuana sewage problem.

As I noted earlier, IBWC projects are normally financed through the Department of State's budget, as is the case, for example, in the Nuevo Laredo project. With regard to Tijuana, Congress decided in the Water Quality Act of 1987 to authorize the EPA to provide funding. The IBWC became responsible for developing and negotiating the international framework of the Tijuana project and for management of the technical design.

In accordance with usual practice, EPA decisions on funding of the project were delegated to the regional level. Region 9 then formed the policy and technical committees, which included representatives from the EPA, the U.S. Section of the IBWC, the State of California, and the City of San Diego. The Department of State

is not represented on these committees and does not participate in their decisions. The U.S. Commissioner and his representative report on developments at these meetings to the department, generally to the Director of the Office of Mexican Affairs, whom I supervise, through the IBWC's Special Assistant located in that office.

In response to the states of emergency declared by California in San Diego last year, the Clinton Administration directed the EPA and the U.S. Section of the IBWC to accelerate construction of the Tijuana International Wastewater Project. The Department of State strongly supported and welcomed this decision to accelerate the Tijuana project. The Department agrees with the IBWC and the EPA that it is important to maintain this accelerated schedule.

Pursuant to this goal, the U.S. Commissioner has already relocated a high-level engineer and additional personnel from U.S. Section headquarters in El Paso to the San Ysidro office in the San Diego area to accelerate the project. The Department welcomed this move and will ask the U.S. Commissioner to take other similar steps in order to be sure that sufficient personnel are assigned to the Tijuana project. The Department is proposing a reprogramming of funds from the IBWC construction account to the IBWC salaries and expenses account to enable the U.S. Section to retain personnel in employment to complete this and other projects.

Following up on recent Department of State-EPA conversations on the Tijuana project, the Department will also explore the possibility of instituting an earlier IBWC proposal to develop a Washington interagency working group on the Tijuana project, if that would be a useful way to maintain this momentum.

By taking these steps, I think the Department will make every effort to help the IBWC and EPA assure that the primary treatment modules of the Tijuana International Wastewater Project are in operation by the end of 1995 and that the full project is completed by 1998.

Thank you very much.

Mr. BORSKI. Thank you, sir.

Mr. Gunaji.

Mr. GUNAJI. Thank you, Mr. Chairman and Members of the committee. I'm very pleased to have this opportunity to appear before you to present my views on a matter of great importance: how to improve the management of the Tijuana wastewater project and how to speed up its construction.

I have a written statement which I would like to submit for the record. I will only give a brief oral introduction in order to allow ample time for questions and for other panel members' presentations.

But first I need to inform you that under usual procedures, my tenure as the Commissioner of the International Boundary and Water Commission will come to an end in the near future. Therefore, this hearing gives me a good opportunity to reflect on my involvement with the Tijuana wastewater problem and our mutual efforts to resolve it and to answer your questions.

I'm very pleased to see Congressman Filner. He and I have struggled with this problem for many years. We have had lively debates on how to resolve it, and while we differed on occasions, I

only have the highest respect for his sincere efforts in arriving at a real solution to this problem.

Since 1988, I have given the Tijuana international project my top priority. I have made every effort to bring this project along to an early completion. The complexity of this project that involves international and domestic issues has added to the time needed toward this end. This project should be completed at the earliest time in order to improve the health and the environment in the San Diego-Tijuana border area.

To help achieve this goal and in conformance with the fast-track schedule, the United States Section of the IBWC has just issued on the 12th of April, yesterday, a solicitation bid for the site preparation of this plant. Bid opening is scheduled for May 23rd.

I have with me Mr. Jose Valdez, Principal Engineer for Construction, and Mr. Bill Ruth, the project manager for the Tijuana international project, both of the Commission staff. With your permission, they will be assisting me in answering your questions. I would be delighted to respond to any questions you have.

Thank you very much.

Mr. BORSKI. Thank you very much, sir.

Mr. Valenzuela, let me start with you. As you have heard, this project was originally projected to be completed this year, and ground has not yet been broken. I realize most of this happened before you came to the State Department, but how much oversight of IBWC has the State Department exercised over the past four years? As this project fell behind schedule, what actions did the Department take to get the project back on schedule?

Mr. VALENZUELA. Well, Mr. Chairman, as I indicated earlier, the Department of State has only a very general supervisory role over the IBWC, and our role is to provide foreign policy guidance from the Department to ensure that the relationships between the United States and Mexico are properly addressed. We do not have direct technical advisory supervision. The commissioner is a Presidential appointee. This is a separate, in a sense, an executive agency, and with matters having to do with the technical feasibility studies and with the implementation of particular decisions, the Department does not have a direct role.

We have been concerned, however, about this project, my predecessors have, and have been as forthcoming, I think, as possible to try to guide the IBWC in coming to fruition on this.

My own sense—and you're correct that I've come new to this. I came in on January 10th into the Government, so I don't really have much of a history. My own sense is that this is a complex project, more complicated than the other projects that the IBWC has addressed. I toured the Nuevo Laredo project recently in Mexico, and that's a project that is coming very rapidly to fruition and was begun approximately at the same time, but it's a project also of not the same scope and complexity. I guess my understanding is that plants of this size and complexity do take a long period of time.

Mr. BORSKI. Do you think it's important to have closer oversight of the IBWC?

Mr. VALENZUELA. My understanding is that—I'm not sure the Department of State would have the kind of technical expertise to

be able to oversee the IBWC on some of those matters. We're concerned about the foreign relations with Mexico. So I think it would be a mistake if the Department of State tried to get involved directly in some of these management and technical issues.

Mr. BORSKI. Mr. Valenzuela, the subcommittee is pleased to hear you speak of setting up an interagency working group in Washington to look at the international plant project. Can you elaborate on what you think this group might accomplish?

Mr. VALENZUELA. Well, this is something that Commissioner Gunaji actually recommended be done earlier. I think one of the problems with this project could be that—and I've heard this from several people as I've tried to understand more of what happened—indeed, there have been perhaps too many cooks in the kitchen, and this has made the thing more difficult. I would suspect that if there were an interagency working group in Washington to supervise the process, that this would allow us to be able to keep the interagency process more on track and make sure that we can meet some of these deadlines.

I certainly am absolutely committed to doing the utmost, from the point of view of the Department of State, to try to ensure that the agreement that we reached in November in fact proceeds further. If this requires in some way a greater direct involvement of the Department of State, as I said earlier, not in technical matters, but at least in trying to facilitate getting agreements accomplished, we certainly will do that.

Mr. BORSKI. Mr. Gunaji, the City of San Diego, in its testimony a little later today, will recommend that IBWC locate a contracting officer in San Diego so as to speed the process of revising contracts when necessary. Do you agree that relocating a contracting officer to San Diego would make the project move forward?

Mr. GUNAJI. I have no problem with that, sir.

Mr. BORSKI. Do you think it would work and help?

Mr. GUNAJI. Yes.

Mr. BORSKI. Several of the people our staff talked to at other agencies said that IBWC's contracting practices slowed down the process of finishing the design of the treatment plant. They said that because IBWC's design contract was very specific, every change in the design requirement forced a renegotiation of the contract. Can you comment on that, sir?

Mr. GUNAJI. In my testimony, I have given more detailed information on this particular matter that was a concern of the committee, Mr. Chairman, but I'll quickly summarize the intent of that particular comment that you just made.

When we started putting together the scope of work with the interest of various agencies, we had to form a scope of work which would incorporate all of the ideas that could generate after we issued that particular scope of work to the contractor. We wanted our scope of work and contracting mechanism flexible so that we did not have to go through repurchase procedures.

It has taken some time for us to do that and might have been a little cumbersome; however, with the modifications that we have issued, we have not gone through a repurchase procedure. If we had gone through repurchase procedures in case some of our ideas did not work on that, then it would have taken a longer time.

So that is the reason. And I'm willing to find ways to shorten—this is my instruction to my staff—to shorten the procedures so that these delays would not occur in future contracting procedures.

Mr. BORSKI. Okay. Thank you, sir.

Let me yield at this time to the gentleman from California, Mr. Filner.

Mr. FILNER. Thank you, Mr. Chairman. I'd just like to follow up on a few of your questions.

Commissioner Gunaji, I certainly want to return your compliments. I share the same high regard for you. We've been dealing with this issue for many, many years, and I think your efforts have put us in a position where we can ask the right questions to get it done, and I appreciate your efforts.

The testimony of Mr. Valenzuela bothered me a little bit. I'm not sure this question can be answered today. You're new, and I too am new in Washington and not sure whether this is standard practice or not. But maybe we can think about it in the future. The lack of oversight because there's a Presidential appointment involved—you referred to IBWC as somewhat independent. The funding comes through the State Department for IBWC, and it seems to me that that gives you a certain leverage of accountability.

It bothers me that there seems to be a sense that you can't oversee what's going on primarily because of the technical nature of the work. I think that's a dangerous attitude, by the way, just from my own perspective, in that if we allow ourselves as policymakers to say that technical things are beyond our purview, I think we've lost the game in many ways, and I would urge you to rethink that situation. Technical aspects and policy aspects merge in many areas, and we can't allow the experts to frighten us into saying their work is so arcane and so divorced from our own possibility of understanding.

I happened to be, by the way, professionally, before I entered politics, a historian of science and technology, and I'm very much concerned with the "experts" telling policymakers that they're doing stuff we can't understand. I urge you to try to figure out some way to have some oversight. You provide the money. Without oversight, they can get you in a lot of foreign policy problems.

Mr. VALENZUELA. If I might comment on that, Mr. Chairman, I'm a political scientist myself, so I completely subscribe to the view that there is no clear separation between policy and expertise. What I was trying to do was to simply outline the fact that the Department of State has very general supervision over the foreign policy aspects of the implementation of these projects, and that when it comes to the technical issues as to whether delays take place because of the desire to implement new technologies or the complexities of bringing in new technologies or the application of certain kinds of environmental laws and that sort of thing, at this point the Department of State does not get involved in that kind of detail.

But certainly we are concerned about the fact that with Mexico we need to address these serious problems on the border, and if it takes perhaps more direct involvement in the future, maybe that's something that ought to be addressed, and I agree with you very strongly.

Mr. FILNER. One of the points that Mr. Gunaji raised was about getting technical information on sewage flows, for example, from Mexico, and he's had some difficulty, as I understand, both from talking to him and from his testimony. It seems to me that that's where you can very forcefully provide some help.

Mr. VALENZUELA. My impression is—and this is something that I'm more familiar with, because I've been dealing directly with the Government of Mexico on several issues, including the establishment of the Border Environment Cooperation Commission—that in the post-NAFTA environment—you mentioned earlier in your remarks, Congressman, that you were concerned about what is the impact of the NAFTA agreement, and I think that we see already a much more forthcoming attitude on the part of the Mexicans.

The Commissioner was mentioning to me yesterday that the difficult issue of trying to come to some judgment as to what the flows are from Tijuana is being addressed much more forthrightly and much more directly by the Mexicans, and this is certainly something that we're going to press the Mexicans on to be much more forthcoming on the side that can help us.

Mr. FILNER. Just briefly on the interagency proposal, I would hope that you don't necessarily see this as just a purely executive branch panel—this is an attempt to solve problems, I take it, and both this committee and the Congresspeople who are involved with this, I think, have expertise and commitment and knowledge to help out, and I hope you would find a mechanism to include input at that level.

Let the record show he's nodding "yes".

Mr. VALENZUELA. We certainly welcome that, Congressman, and we will make every effort to do that.

Mr. FILNER. There's a potential critique that's going to be raised in a court situation perhaps of what is going on that might slow this down. Do you have confidence, both you and Mr. Gunaji, that the treatment process that is actually authorized and committed to is the appropriate one, that we've examined other treatment processes and this is a tested method that can work and we should proceed with?

Mr. VALENZUELA. This is the kind of issue, I guess, that I would prefer to defer to the Commissioner on.

Mr. GUNAJI. Would you like me to answer that question, Congressman?

Mr. FILNER. Please

Mr. GUNAJI. Yes, I believe that we have come in this project so far along that the advance primary and secondary treatment process is the one that we are locked into now, and I think if allowed to proceed with that and construct it, we'll rapidly come to the conclusion of these processes. There are other processes that have been proposed that have merits and drawbacks, and if we now go back to revisit, changing in midstream, then we'll have considerable delays, because we'll need to go back and fix our environmental impact statement to conform with what we're going to construct.

Therefore, I recommend that if early completion is the desire of the committee and the people of San Diego, then changing processes in midstream will be detrimental to the time schedule.

Mr. FILNER. I guess one thing you don't want to do in sewage flow is change horses in midstream. [Laughter.]

Just briefly, Minute 283 is the authority on this, and as I understand it, any change in the conceptual nature of the treatment plant—say, an all-Mexico solution that has been proposed by some people—would require a complete change in the Minute. Is that a fair statement?

Mr. GUNAJI. Let me update your thinking on that particular process. In Minute 283 and prior to Minute 283 being signed, we debated at length with the Republic of Mexico the type of treatment that the sewage should have. The United States Commissioner was bound by the laws of the United States that any treatment that he will propose in the United States should conform to our Clean Water Act. Therefore, in the proposal to Mexico, we took the position that the secondary treatment should be the ultimate goal of our treatment procedure, and that's what the Minute reflects.

If we now change horses in midstream and now are going to go to other processes, then it is incumbent upon the United States to revisit this problem with Mexico and get their concurrence diplomatically through a Minute of the Commission, and that's what we will do if the feeling is that we should change the process.

Mr. FILNER. And that would require a lot of time.

Mr. GUNAJI. Correct.

Mr. FILNER. I just want to make sure it's on the record that any change, not just in the exact technical plant construction type, but in the very concept of what we're doing, would require the full international negotiation process to begin again.

Mr. GUNAJI. You are correct, Congressman Filner. We would need to revisit the problem again to make sure that our diplomatic agreements are proper and subject to our agreement with Mexico.

Mr. FILNER. And, obviously, I hope we don't have to do that at this point in time.

A lot of your ideas and proposals are based on information that is dependent on the Mexican government and their data, and it just seems that we do not have up-to-date and accurate information. Is that a problem that, as Mr. Valenzuela said, is being resolved, or can he help get this information a lot sooner and more accurately?

Mr. GUNAJI. Mr. Valenzuela is correct. Mexico has cooperated with us considerably, and we are getting very rapidly much more up-to-date data on Tijuana sewage flows. They have also given us all the design information, which I have shared with the policy committee. So I can say to you now that we have at our disposal as up-to-date information as the Mexicans can give to us, and they are making changes that we requested, and hopefully they will be implemented by the installation of various monitoring devices and measuring devices in their system. So it's all presently being undertaken by the Boundary Commission.

Mr. FILNER. Based on that information that you're getting and will get, let me just say, the State of California is going to testify later that if we just merely refurbish the Mexican pumping station and the emergency connector, that that could handle the sewage flows from Tijuana. Yet you and I know, because we've been there

and observed it, that even when the pumping station is fully operational and working properly, with the emergency connector in use, there's still millions of gallons that could spill or be released. So is that an accurate statement, that refurbishing the pumping stations on the Mexican side would solve this problem?

Mr. GUNAJI. It is a good idea to refurbish the Mexican pumping station, and we have requested such action on the part of Mexico, and we are debating that issue, because it will assure ourselves of the capability of pumping sewage through that pumping system.

Sewage flows coming down there are to be determined based upon some sort of analysis, and what we have experienced with Mexican sewage flows from information that we have actually gathered and the Mexicans have given us is that the City of Tijuana has a very highly fluctuating scenario, depending upon the number of people and the level of water. Therefore, on any particular day, you may find the flows to be low, and some of the time you may find the flows considerably more in the order of magnitude than was experienced the previous time.

Therefore, in our planning and our proposal to the policy committee in finalizing the design procedure, we felt that this plant should be designed for a future scenario. We cannot design it for the present day scenario, because if that were the case, the day we finish this project it would be fully loaded, saturated. So we always felt—knowing and working with Mexico all these years, we always felt that it is better to have some sort of a cushion down there to accommodate future flows, so we have a plan on the horizon to control future pollution problems and work for future expansion.

There are two schools of thought here. You can take the State of California presentation and say we'd like to design this plan for a lower discharge magnitude capacity, and if it works, that's fine. But if it doesn't work, then somebody needs to make an explanation.

To make sure that we have—after spending all these efforts and resources of the United States, I firmly believe that a larger undertaking is desirable which can be finished with the construction of modular capacity. We can start from a lower capacity that we can afford within the budget that the Congress has authorized and slowly build upon that, depending on the Mexican flows coming in, and have a larger capacity available.

I believe the City of Tijuana and the area around San Diego in years to come is going to grow very rapidly, and I would like to say to you that we would like to take this project that at least deals with the pollution problem for at least the next 10, 15, 20 years. We have a horizon date of something like 2010. We should plan for that date. Therefore, I do not dispute the presentation made by the State of California when debating this point, and my position and the policy committee's has always been that we have requested a 25-MGD plan and that we would like to proceed with that.

In addition, very recently, the Mexican Commissioner, knowing the development on his part and in this country, has requested additional consideration for increasing the capacity by 12.5 MGD to 32.5 MGD, for which the Mexicans are willing to pay, and that negotiation is being held in abeyance until such time as we complete the analysis of the first stage.

I hope I gave you a detailed answer, Congressman.

Mr. FILNER. You're ready for the Senate. [Laughter.]

Let me just try to rephrase that and get a simple answer. You said you wouldn't dispute the State of California testimony, but they're saying you don't need this plant. Do you dispute that or not? I mean, I'm just a mere public official trying to understand it.

Mr. GUNAJI. From my viewpoint, I have to differ with that conclusion.

Mr. FILNER. You have to what?

Mr. GUNAJI. I have to differ.

Mr. FILNER. Okay. You do differ with their conclusion.

Mr. GUNAJI. Of course.

Mr. FILNER. Okay. Lastly, in the interim years, assuming we can build the different modules with current funding, how are you going to get rid of the effluent?

Mr. GUNAJI. We have planned to have at least one or two alternatives incorporated before the plan is completed. The first one is to restore the pumping capacity of the Mexican pumping station. That will allow us to increase the flow going down to the Mexican system to a larger value.

A second proposal that we are finalizing, we'll be finalizing by the end of this month, would be to collect the discharges from the completed plant or intermediate flows into the big pipe and have a pumping station at the other end and directly pump the effluent from that into the Mexican system.

If the system is overloaded by those two scenarios, then we have another option that we're considering, which is we will request a permit from the State of California to apply it to the IBWC lands that are available in the valley, and, of course, the last option, which we would not like to invoke until the flows are established properly, is a live-stream discharge into the Tijuana River, and that would take additional permitting through the State of California and EPA.

So we have outlined a series of procedures here. In the meantime, we are also keeping in the back of our minds that the capacity of 10 million to 12 million gallons per day, we could use the connection to the San Diego treatment plant, and we would simply pass the raw sewage for treatment to the San Diego plant at Point Loma. So there is a combination of efforts with which we would make sure that the interim measures would not discharge anything in the Tijuana River.

Mr. FILNER. Are you going to be here all morning?

Mr. GUNAJI. Yes, sir.

Mr. FILNER. If we need him to respond to some of the later testimony, is that possible, Mr. Chairman?

Mr. BORSKI. Sure.

Mr. FILNER. I appreciate it. We've had a long history, as you can tell, of mutual admiration and trying to figure out the problem, and I appreciate your being here, as always.

Why, by the way, with your long history, as you said in your testimony, and experience in constructing sewage projects, are you going to get the Army Corps to manage the construction of this plant?

Mr. GUNAJI. The immediate answer is that I'm committed to fast-tracking, and I feel that for the purpose of really fast-tracking, the assistance of the Corps will enable us to meet our deadline. In addition, the Corps and the IBWC have historically, since 1848, a long relationship of working on combined projects.

Mr. FILNER. I feel like we've been working on this since then together. [Laughter.]

Mr. GUNAJI. So that's why. I felt that will facilitate the goals that have been set up by the policy committee.

Mr. FILNER. Thank you.

Mr. BORSKI. The Chair thanks the gentleman.

Mr. Gunaji, please explain how the IBWC might ensure that the Mexicans make good on their plans to establish a pretreatment program to take care of the industrial toxics that could affect the operation of the international plant.

Mr. GUNAJI. In our agreement under Minute 283, we have agreed to monitor the toxics in the sewage, and very soon, as our plant gets into the construction stage, we will be working with Mexico for a pretreatment monitoring agreement by a new Minute. A number of meetings have already been held, and we are well advanced in that procedure. We intend that the discharges from the Mexican industry will be controlled by the Mexican government.

Mr. BORSKI. Mr. Gunaji, the planned international treatment plant would only be successful in keeping our beaches clean if the Mexicans successfully treat their sewage at their Punta Banderas plant. What data do we have on the effluent quality at Punta Banderas, and what assurances do we have, after spending hundreds of millions of dollars on the international treatment plant, that we won't have untreated sewage from Punta Banderas sweeping up the coast and polluting our beaches anyway?

Mr. GUNAJI. According to our discussion on that particular point, the Mexicans are revamping the Punta Banderas plant. It is undergoing or has just undergone the cleanup operation and replacement of broken down aerators. Because of necessity, Mexico has increased the sewage load above the original design plant capacity. They would like to reduce the flow through that plant to give proper treatment so that when it is discharged to the surf in the Pacific Ocean and if it moves in the Pacific Ocean toward the United States, it would meet our agreed-upon international criteria.

So it's a balancing procedure. The quicker we build our plant and divert all the excess flows for treatment into the international plant on the United States side, and the Mexicans adjusting their flows to give a better treatment, that in effect eventually will solve the problem of the effluent quality.

We monitor with Mexico that plant very regularly, and just the way they inspect our facilities, we inspect theirs, and we have excellent cooperation. We've requested certain measures to be undertaken, and they've followed through on them.

Mr. BORSKI. Let me recognize the gentleman from Wisconsin, Mr. Barca. I know you walked in late. Did you have any particular questions of these witnesses?

Mr. BARCA. No, I don't at this time. Thank you, Mr. Chairman.

Mr. BORSKI. Any final questions from the gentleman from California?

[No response.]

Mr. BORSKI. If not, we want to thank you very much for your testimony. You've been very helpful.

[Subsequent to the hearing, the following was received from Mr. Gunaji:]

ANSWERS TO CONGRESSMAN ZELIFF

Question 1: What is the current timetable for the completion of the wastewater treatment plant? Can the completion date for the outfall be expedited?

Answer 1: The advance primary phase of the treatment plant is scheduled for completion in late 1995. The completion schedule of the ocean outfall has been compressed where possible to allow for the earliest possible completion date. We are still working with our designer, Engineering Science, to develop ways to shorten this schedule. The scheduled completion date for the outfall is February 1998.

Question 2: What is the total projected cost for its completion? Once the plant is operational, who pays for operations and maintenance? What is the estimated annual cost of operations and maintenance?

Answer 2: The total projected cost for the project is \$383,000,000. The operations and wastewater treatment plant and ocean outfall maintenance cost will be shared between the United States and Mexico. Mexico is to cover a cost equal to that which Mexico would have to spend to operate and maintain a plant in Mexico, had it not joined in the international plant. The specific cost corresponding to each country is being negotiated by the IBWC and will be memorialized in an operation and maintenance IBWC "Minute". The operation and maintenance cost is estimated to be \$12,000,000 per annum, excluding sludge disposal which is assumed totally by Mexico.

Question 3: Am I correct in the understanding that the federal government's share of this project is capped at \$239.4 million?

Answer 3: Yes.

Question 4: It is my understanding that Mexico's share of the project is \$16 million. This figure seems low relative to the total cost. Why is that?

Answer 4: The Mexican share of the construction cost is under negotiation based on what it would have cost Mexico to build a treatment plant in Tijuana instead of joining in the international plant. The \$16 million is an estimate utilized in 1989 when the overall project cost of works in the United States and Mexico was estimated at \$187.0 million, of which Mexico would cover \$67.0 million (36%) and the United States would cover \$120.0 million (64%) as estimated preparatory to negotiations that culminated in the international agreement in IBWC Minute No. 283. That estimate took into account some \$30 million in Mexican costs for Phase I conveyance and treatment works, and Mexican costs for Phase II covering \$21 million to reverse pipeline flows to the international plant and the \$16 million for what would have been the Mexican Phase II treatment plant.

Question 5: At the present time, the financing for this project will come from the federal government, the City of San Diego, the State of California, and Mexico. Has any consideration been given to making this plant privately owned and operated?

Answer 5: Private ownership and operation (privatization) has not been considered since the project is being financed in large part with Clean Water Act monies designed to finance public-owned facilities. The operation and maintenance costs were envisioned to be by the United States and Mexican Governments. On the other hand, operation and maintenance by private concerns on behalf of the U. S. Government is a viable option. However, this does not change the financing structure which assigned the ultimate responsibility to the United States Government with reimbursement in part by Mexico based on negotiated terms.

Question 6: It is my understanding that Mexico is privatizing their water systems. Why shouldn't this bi-national plant be privatized?

Answer 6: Mexico's vision of "privatization" is not one of ownership and operation. Mexico views "privatization" as a ten-year turnkey concession arrangement between Federal/State/Local governments and a private company. The arrangement calls for the private company to finance the design and capital costs to construct and operate a wastewater treatment system. The arrangement would include development of a financial feasibility package with user fee levels to cover design, construction, operation, maintenance and a return on investment. Ownership stays with a governmental body and that governmental body is responsible for collecting the recommended user fees and paying the concessionaire from fees collected. The State and/or Federal governments acquire the right of way and construct the collection facilities and assume the ultimate financial responsibility and at the end of the 10-year concession, operation and maintenance tasks return to the responsible government agency.

For almost two years, Mexico has been considering privatization sites along the border -- in Cd. Juarez, Chihuahua and in Matamoros, Tamaulipas. However, construction has not been possible since the repayment issues have not been resolved.

We have encouraged innovative financing approaches for international projects. However, in the case of Mexican privatization, the bottom line remains the same -- there is not yet assurance that 1) the Mexican works will be designed, constructed, operated and maintained to assure effluent quality that meets United States standards and 2) that fee collections can cover the cost of the private concession. This situation has made it more practical to continue to stay the course on shared U.S.-Mexico federal financing of the Tijuana Project. Until the bottom line on Mexican wastewater programs improves, United States cost of participation in this Project has enabled the United States to ensure that Mexican wastewater works meet United States standards.

Question 7: Would this be a cost effective alternative to consider?

Answer 7: Based on our comments to Answer 6, the Mexican privatization approach at its present stage is not yet cost effective in that poor effluent quality and/or untreated sewage would continue to enter the international waters which would require the United States to cover the additional high costs of defensive works to protect public health and water uses in the United States. It is possible that the two governments will further examine user fee alternatives as the Border Environment Cooperation Commission is developed.

Question 8: Both the United States and Mexico have a vested interest in alleviating the pollution problem in the Tijuana River. Because this is a bi-national effort, to what degree has this contributed to the slow pace of the project?

Answer 8: The fact that this is a bi-national project has had no impact on the the pace of the project. The schedule of the project has been dictated by United States domestic law requirements, such as the environmental impact considerations, administrative procedure and the changes of position by the City of San Diego regarding their participation in the project.

Question 9: What will the proposed treatment plant do with the treated water? Are there any plans for the reuse of treated water, such as for irrigation purposes:

Answer 9: The effluent produced by the proposed treatment plant which will be disposed through an ocean outfall. Mexico reserves the right to return that treated sewage effluent to Mexico at a cost to that country. Mexico has not proposed return of that treated sewage effluent at this time. Pending a determination by Mexico the United States could consider reuse of the effluent but at a risk that Mexico may not always make it available. However, a market for reclaimed water on a massive scale is not presently available. In view of the uncertainty over use of Mexican treated sewage effluent, it is questionable whether the United States should invest in reclamation infrastructure since Mexico can claim the treated effluent for use in Mexico pursuant to IBWC Minute NO. 283.

Question 10: The region continues to suffer from water shortages. Shouldn't a water reuse plan be a mandatory component of this project?

Answer 10: Reuse was a consideration during the 1988-90 negotiation of IBWC Minute No. 283. Neither the United States nor Mexico found an immediate market to warrant reclamation work as a part of the international project. However, the two countries considered that reclamation may be possible in the future. This, of course, is with Mexico's reservation to reclaim these waters in the future. The outfall construction provides a turnout pipe to connect with future reclamation facilities.

Question 11: What will the plant do with the sludge -- or what we now refer to as "bio-solids" -- that is generated from the treatment process?

Answer 11: All of the Tijuana sludge produced by the international wastewater treatment plant will be removed from the site by Mexico for disposal in Mexico.

Question 12: Will the proposed treatment plant treat all of Tijuana's wastewater?

Answer 12: Mexico will continue to treat 25 mgd at its Puntas Banderas Plant. Under the terms of the international agreement in IBWC Minute No. 283, the international wastewater treatment plant is proposed to treat an additional 25 mgd of Tijuana sewage. Flows in excess of 25 mgd at the international wastewater treatment plant treated in the future under the terms

of IBWC Minute No. 283 may be handled under a different cost sharing arrangement.

Question 13: Will this project eliminate discharges into the Tijuana River?

Answer 13: Mexico is required to contain all Tijuana sewage in the collection system and take prompt action to correct renegade sewage flows either in the Tijuana River or canyons. Also works for collection of renegade sewage flows are planned in the United States near the boundary. When this occurs with the project on line, this project will eliminate all dry weather sewage discharges into the Tijuana River.

Question 14: Is there any estimate as to how much of the discharge into the Tijuana River is toxic substances?

Answer 14: Tijuana sewage has been characterized over a period of years by the City of San Diego and more recently by United States Section contractors Boyle Engineering (1990) and Malcolm Pirnie (1992). The sewage has a higher biological oxygen demand and total suspended solids and a number of trace metals and toxic constituents are present in variable concentrations. Mexico is in the process of developing an industrial pretreatment program which is similar to programs in the United States.

Question 15: Will the proposed treatment plant deal sufficiently with toxics?

Answer 15: The intent of the IBWC is to address the toxics issue through a pretreatment program to be administered by Mexico. Mexico is developing and will be required by terms of IBWC Minute No. 283 to control industrial discharges into the sanitary sewer system that will be delivering sewage to the international plant for treatment. The ability of the international wastewater treatment plant to treat toxics depends upon the quantity and nature of toxics arriving at the international plant.

Question 16: Please provide the Subcommittee with any revised Mexican sewage flow projections.

Answer 16: The Mexican sewage flow projections provided by Mexico to the U.S. Section, International Boundary and Water Commission, in May 1993, are the same as those provided in December 1992. Sewage Flow Projections are an estimation of the increase of flow over time and in the case of Tijuana will be used to predict when the next addition to the system will be needed. The Punta Banderas Treatment Plant has a capacity of 25 mgd, the international wastewater treatment plant will have 25 mgd of additional capacity and it is expected that the Tijuana sewage flows will exceed 50 mgd between 1995 and the year 2000.

ANSWERS TO CONGRESSWOMAN SCHENK

Question 1: What will be the ultimate capacity required of the International Treatment Plant, and can a plant built to that capacity be paid for under the present appropriations cap?

Answer 1: The ultimate capacity of the International Treatment Plant will be 100 mgd average daily flow. A plant of this capacity cannot be paid for under the present appropriations cap. The appropriations cap of 239.4 million dollars is for a 25 mgd plant which is the first phase of the proposed international wastewater treatment plant.

Question 2: How much is Mexico willing to contribute to the costs of constructing and operating the International Treatment Plan, which will treat almost exclusively Mexican sewage?

Answer 2: The overall basis for Mexico's contribution is the international agreement in IBWC Minute No. 283 in which Mexico pays construction and operation and maintenance costs in the amount Mexico would have paid for constructing a treatment plant in Tijuana to handle the minimum 25 mgd of Tijuana sewage envisioned in IBWC Minute No. 283. This amounts to the offer made by the United States, after intense interagency consultations including support from California and San Diego, to get Mexican participation in the international plant and avoid beach pollution and damage to the Tijuana River saline water estuary.

Mexican share of the construction cost is under negotiation based on what it would have cost Mexico to build a treatment plant in Tijuana instead of joining in the international plant. The specific amount is under negotiation. The Mexican Section has provided an estimate of \$16 million. The \$16 million is an estimate utilized in 1989 when the overall project cost of works in the United States and Mexico was estimated at \$187.0 million, of which Mexico would cover \$67.0 million (36%) and the United States would cover \$120.0 million (64%) as estimated preparatory to negotiations that culminated in the international agreement in IBWC Minute No. 283. That estimate took into account some \$30 million in Mexican costs for Phase I conveyance and treatment works, and Mexican costs for Phase II covering \$21 million to reverse pipeline flows to the international plant and the \$16 million for what would have been the Mexican Phase II treatment plant.

Question 3: What efforts are the Mexicans willing to make to curtail renegade flows on their side of the border?

Answer 3: Mexico is making progress daily on curtailing renegade flows. A pumping station and pipes were placed into operation in the Mataderos Canyon. This reduces the transboundary flows at Smugglers Canyon. On April 20, 1994, Mexico placed in operation the pumping plant at Las Laureles Canyon to stop flows entering the United States via Goats Canyon. We continue to encourage Mexico to complete further works under way to eliminate untreated sewage flows into the Tijuana River and to complete treatment works at Tecate, Baja California.

Question 4a: Where will the International Treatment Plant's effluent be discharged?

Answer 4a: The effluent from the International Treatment Plant will ultimately be disposed of through an ocean outfall that is approximately 18,000 feet in length.

Question 4b: What will happen to the effluent after the initial phase of the plant is in operation and before the ocean outfall is completed?

Answer 4b: During the initial phase start-up of the plant, it is proposed that effluent be discharged by a pump-back system to Mexico that will take effluent from the proposed plant and pump it back to Mexico's conveyance channel that conveys sewage to a treatment plant at Punta Banderas. In addition to using the pump-back system to Mexico, the Policy Committee is investigating other alternatives for of interim discharge which includes the continued use of the emergency connection to handle all flows that cannot be taken to Mexico. In addition to these two alternatives, the use of land application is being investigated along with discharges of advance primary treated effluent to the Tijuana River.

Question 4c: Can it be effectively pumped back to Mexico and can the Mexican system accommodate it?

Answer 4c: Mexico can effectively accommodate up to 48 mgd through their conveyance system. The international wastewater treatment plant sewage effluent pumped back to the Mexican system would have been treated to advanced

primary stage. This effluent will be blended with raw sewage conveyed from pumping plant No. 1 to the Mexican treatment facility. However, the Punta Banderas facility is capable of treating of 25 mgd.

Question 5: The IBWC is planning an interim facility to capture renegade flows from Mexico during the construction of the International Treatment Plant. A number of questions have been raised about the feasibility of temporary storage of sewage in the SBLO pipe. Could you provide us with an explanation of how the IBWC intends to provide for the possible accumulation of sludge and gasses in the pipe?

Answer 5: IBWC has completed a technical report regarding the feasibility of utilizing the SBLO pipeline for the temporary storage, and regulation and subsequent pumping of raw sewage and treated effluent back to Mexico before the ocean outfall is completed. However, the technical problems associated with the use of the SBLO pipeline are a concern and an alternate method of pumping back to Mexico is presently being investigated whereby pumps would be installed at the headworks of the IWTP connecting to a large diameter pipeline that would be constructed to parallel the Mexican system to pump sewage back to Spooner's Mesa and thence to the Mexican system.

Question 6: It has been proposed that the International Treatment Plant treat its effluent to a level appropriate for discharge into the Tijuana River. Is that feasible and achievable? What would the effect be on the estuary ecosystem?

Answer 6: One of the alternatives under consideration is that in the interim that effluent from the International Wastewater Treatment Plant, both at the advance primary stage and secondary stage, be discharged directly to the Tijuana River. If this alternative is a feasible option and it could be achieved by disinfection of the advanced primary effluent and dechlorination of the effluent before it reaches the Tijuana River. However, it is recognized by biologists and others that the effluent (freshwater) discharges in excess of a certain range, yet to be quantified but say 10 mgd, most likely would adversely impact the saline estuary ecosystem.

ANSWERS TO CONGRESSMAN SAM COPPERSMITH

Question 1: On February 17, 1994, the populations of Nogales, Arizona, and Nogales, Sonora, Mexico were forced to evacuate due to inadequate wastewater treatment facilities. Before this incident, and after, these communities have suffered from the EPA and IBWC's lack of communication with border communities.

What action is the IBWC taking to improve communication with border communities?

Answer 1: The evacuation of inhabitants from the downtown areas of both Nogales was a prudent determination made by the two local communities after IBWC personnel detected the odor of diesel fuel in the international sewage line that conveys Nogales, Sonora sewage across the boundary to discharge into an international treatment plant. The diesel fuel incident is still under investigation in Mexico, but the IBWC has strongly protested the discharge and is at work on an international agreement for an industrial wastes discharge program in the Mexican city.

The IBWC has attempted to be as responsive as it can with the local communities. The international wastewater treatment plant constructed in the 1950s and expanded in the 1970s and 1980s is the result of a cooperative approach between the United States and Mexico, with Mexico taking into account the needs of Nogales, Arizona. The current effort on industrial wastes controls has involved a number of meetings allowing for input from Nogales, Arizona.

The United States Section of IBWC is improving this effort. The United States Section of the IBWC has successfully encouraged the Mexican Section to join it in holding some of its commission meetings in public. We have invited border community wastewater systems leaders to take part in a series of meetings with Mexican border community counterparts. These meetings are designed to develop industrial waste pretreatment programs in the Mexican communities. We have applied the National Environment Policy Act (NEPA) and related laws to obtain community input as part of the development of international projects with Mexico.

Question 2: IBWC was created by an U.S.-Mexico treaty and is designed to carry out cooperative public works projects along the border. Why has IBWC not implemented any cooperative public works projects in Nogales?

Answer 2: The IBWC, based on the authority that the two Governments have given to it in international treaties, has effectively responded to international problems involving flood control and sanitation, resulting in international projects. In the 1930s the IBWC channelized and covered in part the Nogales Wash in both Nogales. In 1952, the IBWC constructed an international sewage treatment plant in Nogales, Arizona to handle sewage from the two communities. The plant was expanded in 1972 and 1988. Currently, the IBWC is looking at options for handling future sewage flows, including another plant expansion.

Question 3: Why is the community of Nogales not allowed to participate in EPA working groups concerning US/Mexico border water quality?

Answer 3: The IBWC's work on water quality issues is a major topic noted in the United States/Mexico working groups formed under the 1983 La Paz Agreement. The United States Section in those water quality issues in IBWC jurisdiction uses the community involvement process described in our response to your question 1 prior to entering into negotiations with the Mexican side of the IBWC. Where possible, the United States Section has invited Nogales and other community water quality experts to provide additional expertise and views during negotiations. The referenced water work group is not a decision making body. That group's references to IBWC water quality matters are those that both the United States and Mexico are handling through the IBWC.

Question 4: What is the IBWC doing to encourage agreements between United States and Mexican cities concerning sewage treatment plants?

Answer 4: The IBWC under a United States/Mexico agreement concluded in 1979 and supported by the 1983 La Paz Agreement for sanitation projects to handle Tijuana sewage (IBWC Minute No. 283), Nogales-Nogales sewage (IBWC Minute No. 276), Nuevo Laredo, Tamaulipas sewage (IBWC Minute No. 279) and Mexicali, Baja California sewage (IBWC Minute No. 288). Financing for all but the Mexicali agreement was such that the United States participated in the financing to ensure protection of the quality of international streams and to improve the wastewater facilities that Mexico would have constructed so that they will meet the higher United States standards and to ensure continuing international supervision during the operation and maintenance phase.

However, the IBWC is not in a position to conclude further agreements on a number of outstanding problems both along the Rio Grande and the western land boundary with Mexico until financing questions can be resolved and the manner in which the Border Environment Cooperation Commission will assist in developing projects. The Mexicali agreement was conceived with the possibility of shared United States - Mexico financing, but United States financing has not been assured. Mexico has provided wastewater plans for the other border communities and the United States has ideas on improving these to meeting United States standards, but it would not be prudent to seek international agreements on these until financing issues are resolved.

Mr. BORSKI. We'd like to welcome our witnesses on our third panel: Major General Stanley Genega, Director of Civil Works for the U.S. Army Corps of Engineers, and Ms. Nancy Kaufman, Deputy Assistant Director of Ecological Services for the U.S. Fish and Wildlife Service. Ms. Kaufman is accompanied by Mr. Gail Kobetich, also from the U.S. Fish and Wildlife Service.

I'd ask you to please rise and raise your right hand.

[Witnesses sworn.]

Mr. BORSKI. Okay, General, welcome once again.

TESTIMONY OF MAJ. GEN. STANLEY GENEGA, DIRECTOR OF CIVIL WORKS, U.S. ARMY CORPS OF ENGINEERS, WASHINGTON, DC; AND NANCY KAUFMAN, DEPUTY ASSISTANT DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, DC, ACCOMPANIED BY GAIL KOBETICH, CARLSBAD FIELD SUPERVISOR, U.S. FISH AND WILDLIFE SERVICE, CARLSBAD, CA

General GENEGA. Good morning, Mr. Chairman. I'm very pleased to be here today to discuss the Department of the Army's role. I have submitted a written statement for the record, and with your permission, I will just summarize that here today.

The Economy in Government Act authorizes the Army Corps of Engineers to provide reimbursable services to other Federal agencies, and it is under this authority that the Los Angeles District of the Corps has performed work on this project for the EPA. We have been responsible, to date, for four of the key efforts: first, environmental impact statement oversight; second, real estate appraisals and acquisitions; third, the coastal consistency determination; and, finally, the section 404 of the Clean Water Act permit.

The Corps accepted its environmental impact statement oversight in April 1989. The initial schedule anticipated completion of this task by July 1992. This schedule was subsequently extended to May 1994 for two principal reasons. First, significant comments were received during the public review period following the May 1991 issuance of the draft statement. The second reason is related to the complex design issues covered by Dr. Gunaji earlier in testimony. To make the environmental impact statement consistent with these project changes, significant additional data was required and caused that delay.

The final draft environmental impact statement was distributed on the 18th of February 1994 for a review and comment period, which concluded on 1 April. It's anticipated that a record of decision, which completes the National Environmental Policy Act process, will be signed on or about the 6th of May.

In September 1991, we accepted an assignment from EPA to provide real estate appraisals and acquisitions, and we have performed a number of those appraisals to date.

We received the assignments for the coastal consistency determination and the section 404 permits in 1990. Both actions were dependent on the environmental impact statement and, thus, have been delayed. The coastal consistency determination issued by the California Coastal Commission was received in February 1994. The section 404 permit awaits the completion of the EIS and could be

issued approximately one week after the record of decision is signed.

While we continue to do our best to make sure that things are completed on time, Mr. Chairman, I have one concern which I feel necessary to highlight to the subcommittee. The final environmental impact statement did address all of the known environmental impacts, including the endangered species concerns which had previously been identified. However, the Fish and Wildlife Service recently informed us of the possible presence of the Pacific pocket mouse at the project site, and this species was listed as endangered on the 3rd of February, and the project area is within its historic range.

The Service is currently conducting surveys to determine the presence or absence of the Pacific pocket mouse on the project site. If the surveys indicate that the current range of the pocket mouse extends onto the project site, then we would have to go into consultation under the Endangered Species Act, and that could possibly delay the signing of the record of decision and, subsequently, the section 404 permit. We're coordinating very closely with the Service to avoid or minimize those delays.

We stand ready, of course, Mr. Chairman, to provide any reimbursable services that the Federal agencies may require of us to complete the goal of the treatment facility and outfall facility.

That concludes my brief oral statement, and I'm prepared to answer your questions.

Mr. BORSKI. Ms. Kaufman.

Ms. KAUFMAN. Good morning. Thanks for the opportunity to be here this morning.

I'd just like to say that in the early days of this project, I was the Southern California project leader for the Fish and Wildlife Service. Mr. Gail Kobetich is with me this morning. He is the current project leader for the Southern California field office. So I do have personal knowledge of the complexity of this issue.

For a number of years, we've provided technical assistance to our Federal planning partners in the City of San Diego, including the International Boundary and Water Commission. From our initial involvement in this project we've urged the Federal and State agencies to avoid, minimize, and offset impacts to sensitive wetlands and species which are listed as threatened and endangered. Wetlands will play a role in the proper functioning of this project as it is currently designed.

The Tijuana River Valley, where the proposed treatment plant and outfall would be located, is rich in biological resources. The river valley is characterized by extremely variable stream flows, with extended periods of drought interrupted by heavy floods during wet years. The balance of the Tijuana River watershed is located within Mexico. The Tijuana River National Estuarine Research Reserve is approximately 2,500 acres, encompassing the majority of the estuarine and coastal salt marsh habitats. The reserve is one of 21 such reserves located in the United States, and it is comprised of the Tijuana Slough National Wildlife Refuge and the Border Field State Park.

Maintaining the estuary as a functioning ecosystem is an extremely important objective of the Service. Ninety-one percent of

all wetlands in California and 53 percent of all wetlands nationwide have been destroyed by urban and agricultural development. A functioning ecosystem is also vital to allow the natural processing of renegade sewage flows during storm events when the current project will not be collecting flows.

The reserve supports a diversity of fish and wildlife resources, including 40 species of fish, 13 species of amphibians and reptiles, 24 species of mammals, and 302 species of birds. Seven of these species are listed under the Endangered Species Act, including the least Bell's vireo, the lightfooted clapper rail, the California least tern, the western snowy plover, the brown pelican, the peregrine falcon, and the salt marsh bird's beak, which is a plant.

As you just heard in the testimony from the Corps, the Pacific pocket mouse was emergency listed on February 3rd. We don't know yet whether it exists in this project area. That would be eight listed species.

The riparian vegetation type is of extremely high biological importance. For example, the Service has documented over 100 species of birds which utilize the riparian vegetation within the Tijuana River Valley. The endangered least Bell's vireo is one of these species; it is totally dependent on the riparian vegetation for nesting and feeding activities. Coastal sage scrub is a habitat type found along the foothills, and many of these areas provide essential habitat for the California gnat-catcher, a federally listed threatened species.

Our initial involvement with the project also began in 1988. At that time, EPA was debating the need for an environmental impact statement. The project was then designed to collect and pump sewage back to Mexico. Since 1988, the project description has changed several times.

In 1989, the City of San Diego applied for a Federal construction permit in anticipation of the possibility of jointly using conveyance facilities. The Service formally consulted with EPA on the potential effects associated with the 12-foot diameter land outfall pipe. On April 16, 1990, we issued our biological opinion, which was a non-jeopardy opinion, for the listed species in the project area. The biological opinion did identify specific measures that could be incorporated into the project to compensate for unavoidable impacts to riparian habitat and measures to avoid harming species. These measures were jointly developed by the Service, the EPA, the IBWC, and the Corps in meetings held before formal consultation was initiated.

In December of that year, the IBWC announced its intention to capture up to 13 million gallons of contaminated Tijuana River flows. The Service subsequently advised EPA and the IBWC that the removal of such large flows from the Tijuana River could adversely affect the project areas in ways not contemplated in the biological opinion.

In May 1991, the draft EIS for the international wastewater treatment plant and outfall facilities was released for public review. This document was the first document to fully detail the proposed facilities associated with the international wastewater treatment plant. The Service provided extensive comments on the EIS and on the draft biological assessment, which included our con-

cerns on adverse effects to listed species and removal of water from the Tijuana River system. The Service asked in 1991 that an alternative source of water be found for maintaining the quantity and quality of existing riparian habitat, for underground recharge, and for live-stream discharge.

In April 1991, the Service initiated coordination efforts with the IBWC field office concerning construction of the land outfall portion of this project. Throughout the remainder of 1991 and through the summer of 1992, the Service made periodic field visits with IBWC staff to keep abreast of construction activities and assist the IBWC if they encountered any conflicts with endangered species. This close working relationship allowed for minor adjustments to the construction activities that averted impacts to the least Bell's vireo.

The Service continued to provide information and technical assistance to IBWC and to EPA, which included review of contract documents for the replacement of riparian habitats eliminated by construction of the outfall facility, site grading, planting, irrigation of the project's mitigation area, and by providing information to EPA on their revised biological assessment.

Due to concerns over the removal of flows from the Tijuana River, the State Water Resources Control Board prepared a document entitled "Hydrogeological Assessment of the Tijuana River Valley Report." This report concluded that the removal of sewage flows and the return to natural intermittent stream conditions would not cause adverse impacts to the survival of riparian habitat in the flood plain. The report stated that the primary factor for the past losses of riparian habitat within the river valley was the physical destruction caused by human activities, such as agriculture and sand and gravel mining.

We agree with the State Water Resources Control Board's assessment for wet and normal rain years. However, under extended drought conditions, we contend that there may not be adequate recharge to provide enough water to maintain the wetlands, particularly given the projected water losses due to groundwater pumping.

In May 1992, we learned from the Corps that serious consideration was being given to burying the land and ocean outfall beneath the estuary and near-shore Pacific Ocean. The Service encouraged the Corps to pursue this alternative in lieu of excavating an open trench, because this alternative eliminated many significant impacts to the estuary and several State and federally listed endangered species.

In October 1993, the Service attended a meeting to discuss alternative means of treating sewage flows in the Tijuana River Valley. This meeting was chaired by the commissioner of the IBWC and attended by the Deputy Consul General of Mexico and representatives from the local congressional offices of Senators Boxer and Feinstein and Representatives Filner and Cunningham.

The potential for the immediate construction of advanced integrated wastewater treatment ponds was revealed at this meeting. These biological treatment ponds could apparently be designed to provide tertiary treatment. They can be built rather quickly and would provide a source of water for the river valley. Subsequently, we recommended that the IBWC pursue this alternative, as it could provide a solution for the cleanup of sewage, a source of per-

manent water for wetlands and wildlife, and irrigation water for sod fields, farmlands, and county parks.

Because the project had expanded and changed significantly, EPA requested formal consultation for the international wastewater treatment and ocean outfall facility in December 1993. The consultation was delivered in draft to the EPA on April 6, 1994 and will be finalized by the end of the month.

The Service has established a close working relationship with other agencies in planning for this project and provides input on a regular, sometimes daily basis. We hope that this working relationship will expedite the review process and provide for sound decisionmaking in the immediate future.

Again, Mr. Chairman, let me thank you for the opportunity to participate and offer the Service's views on this issue, and I would be happy to respond to any questions.

Mr. BORSKI. Thank you very much, Ms. Kaufman.

General Genega, let me start with you. At the meeting of the Border Policy Committee on March 24, it was decided that the Corps would provide construction management for the international treatment plant. What plans does the Corps have for managing the construction of the plant to avoid further delays?

General GENEGA. Well, sir, we are at the moment preparing a proposal for that management. Frankly, sir, our proposal is to have authority to handle those routine issues that come up during construction such that we in fact would manage the construction. I believe our record of being able to deliver that product is our best plan to achieve the end that you mentioned.

The construction business, of course, as you know, is not really cut and dried. We've never produced a perfect design, and that's not meant to reflect on the design for this facility. The Corps has never produced a perfect one, either. There are unknown conditions, and I think it's important that the party that has construction management have the right kind of authority to handle those problems as we normally would. That's the best guarantee.

Mr. BORSKI. Are you confident, General, that the Corps can meet the fast-track schedule for construction of the plant and facilities?

General GENEGA. Yes, sir, I believe so.

Mr. BORSKI. The environmental impact statement which the Corps supervised did not seriously consider the pond technology that has now been proposed. Do you view this as practical technology for this project, and should it have been fully considered?

General GENEGA. I am not qualified to answer that question, Congressman. I would have to defer to Dr. Gunaji. We were not involved in that alternative's analysis.

Mr. BORSKI. Ms. Kaufman, the concerns of the Fish and Wildlife Service about endangered species now seem to be all resolved except for the case of the Pacific pocket mouse, which you recently have listed as an endangered species. What can you tell us about the Pacific pocket mouse, and how likely is it that preserving its habitat would be consistent with construction of this project?

Ms. KAUFMAN. The Pacific pocket mouse was emergency listed in early February. It was discovered on a project site on the headlands in Dana Point, California, the site of a hotel construction, which by itself would have made the known population ex-

tinct. We do not know that there are Pacific pocket mice in this area. It is within the historic range, and it is appropriate habitat.

We're doing surveys right now. I don't, from my perspective, hold out much hope of finding Pacific mice in the project area, but we will make appropriate surveys.

Mr. BORSKI. In your testimony, you raised the possibility of building advanced integrated treatment ponds, providing tertiary treatment, as part of the treatment plant. What portion of the sewage would be treated by these ponds, how many acres of land would they require, and how long would it take to revise the environmental impact statement, biological assessment, statement of work, design contract, and construction design to get back to where we are now with the existing plan?

Ms. KAUFMAN. The current project doesn't call for any of these ponds. The Service has participated in the environmental review of the project as it is currently designed. I am not in a position to talk about revising the contracts for the project, as our real role is to review the project as it's presented by EPA. I can certainly work with them to find out the answers to these questions, but the Service by itself couldn't answer them.

Mr. BORSKI. Ms. Kaufman, you mention in your statement that on February 2nd of this year, a significant portion of the Tijuana River flood plain was designated as a critical habitat and that you're waiting for IBWC's response to this. What does "critical habitat" mean, and what implications will this designation have for the project?

Ms. KAUFMAN. The Endangered Species Act calls for the designation of critical habitat at the time the species is listed and provides for several contingencies if critical habitat cannot be listed at the time of listing. Critical habitat designation was begun during the listing of the least Bell's vireo but has only recently—eight years later—been completed.

The designation means that Federal agencies must review their projects to determine if they will adversely affect the constituent elements of the habitat—that is, those parts of the habitat actually used by the species, not the road adjacent or someone's house that happens to be located there. If there is a determination that these habitats will be adversely affected, a regular consultation process is called for under section 7 of the act.

We have considered the maintenance of the riparian areas in our previous opinions, and although we must request review by our Federal planning partners, I don't believe that a section 7 consultation would be a significant time delay in this project, even if one is called for.

Mr. BORSKI. Ms. Kaufman, do you expect the Fish and Wildlife's final biological opinion to conflict with EPA's biological assessment and possibly create additional delays?

Ms. KAUFMAN. I don't anticipate that.

Mr. BORSKI. Let me yield to the gentleman from California, Mr. Filner.

Mr. FILNER. Thank you, Mr. Chairman.

Thank you for being here with us. General, just briefly, you stated, I think, both in your written and oral testimony that you were charged with assuring that the EIS complied with NEPA.

General GENECA. Yes, sir.

Mr. FILNER. Yet when the Chairman asked you about certain alternatives, you stated that you weren't involved in that alternative's analysis.

General GENECA. Well, sir, alternative's analysis is, obviously—I think what you're getting at—is a part of the NEPA process and the EIS process. So, yes, we were, but my understanding was that this particular alternative had been proposed at a relatively late date, and I don't believe it was considered from the very beginning.

Mr. FILNER. The reason I'm asking is, as you know, there may be a legal challenge to the EIS, and one of the bases of that challenge is that certain alternatives were not well developed in the EIS. I just want to make sure that you are confident that you explored, as the manager of this process, all of the appropriate alternatives, and that the EIS could not be challenged.

General GENECA. Yes, sir, we are comfortable, and I think it's fair to say that we have the support of, for example, EPA, the Fish and Wildlife Service, with the exception of the Pacific pocket mouse which is at issue right now, and the State of California. So I think we have confidence that we have done a good job on the EIS.

Mr. FILNER. So that the alternatives that were appropriate were explored?

General GENECA. Were considered, yes, sir.

Mr. FILNER. And what about the flow assumptions? You're going to be charged with exaggerating those so you can claim that this plant has to be built. Again, what is the source of those assumptions? Are you confident that they are accurate and you can withstand a challenge on that?

General GENECA. Yes, sir. They have been troublesome in getting, as Dr. Gunaji mentioned. They have been at issue. He's worked very hard with the State of California, San Diego, and the government of Mexico to determine those. But, again, we believe those are supportable, and those drive the entire design of the plant.

Mr. FILNER. So, again, you're confident in your statement that the EIS will withstand any challenge. We're operating, obviously, in a situation where data is not complete; are you confident that your assumptions, within the context of changing data and an evolving situation, are reliable enough to base your opinions on?

General GENECA. Yes, sir, I am.

Mr. FILNER. Ms. Kaufman, I was just troubled a little bit by your testimony. Let me just try to be brief about it, though. Does the Fish and Wildlife Service have a veto power on all these recommendations? I mean, I started counting them up, and there must be a dozen times in your testimony where you say you "disagreed" or you had "a different opinion", your "judgment was different", or you "challenged" a conclusion. What occurs in that situation? Do you veto the process, or who makes the decision? If you disagree with X, Y, or Z agency—and it looks like you've disagreed with every one of them at some point or another—who's the Supreme Court justice in that case?

Ms. KAUFMAN. When a section 7 consultation is completed—and I'm talking about the Endangered Species Act in particular here—when that consultation is completed, it becomes the property of the

Federal agency it was completed for—in this case, EPA. EPA may choose not to take the advice of the Fish and Wildlife Service. They are not under an obligation through the act. However, they run the legal vulnerability of defying the outcome of a section 7 consultation.

In all cases, even in jeopardy situations, where the Service may find that a project would likely jeopardize the continued existence of a species, it is incumbent upon the Service to work with the agency to come up with a reasonable and prudent alternative which the agency finds feasible to implement.

So it is rare that an agency would want to do something other than what a final biological——

Mr. FILNER. So your judgment is pretty powerful in this process.

Ms. KAUFMAN. In this litigious society, I would say yes.

Mr. FILNER. It seems to me, though, that you don't hold out much hope that you're going to find the pocket mouse. Now, it seems to me for people who want to clean up the sewage—I don't want to find it. You're acting as if you want to find it, which will delay the project. Is that what you want to do?

Ms. KAUFMAN. Well, it doesn't matter what I want. I mean, the surveys will show either that——

Mr. FILNER. Well, you said "hope."

Ms. KAUFMAN. Well, from my point of view, there would be no reason not to conserve the Pacific pocket mouse and go forward with this project. The Pacific pocket mouse is now confined to about 36 individuals on the planet, and I would be happy, as a biologist, to know that there were additional individuals available.

Mr. FILNER. Which, of course, delays the project, right? I mean, if that were the case.

Ms. KAUFMAN. No. If the pocket mouse were found, we would have to do a supplemental consultation to supplement the consultation that's already been delivered to EPA to include the pocket mouse. This project has been in development since 1988. The Service does provide endangered species consultations, completed consultations, generally in 90 days. In this particular case, we would be supplementing an existing biological opinion, and I don't feel that it would lead to major delays of this project.

Mr. FILNER. Well, each 90 days becomes months and months and months, and each set of 90-day delays becomes years—that's been the history of this. Again, if you heard my opening remarks, I understand your charge and your mission and what you want to do, and you're committed to it, but if the sum total of all your efforts is that tens of thousands of people take another two years or three years or five years, that is wrong. The attitude seems to be, "it's only poor people. It's only Mexican-American citizens. What are we worried about?" I mean, that's the attitude I get from the report, that, "Okay, well, it's been 30 years, so what's another 90 days or what's another year to fully explore all of these problems?" Is that your attitude?

Ms. KAUFMAN. There really is a component of this project that requires that this ecosystem remain a functioning ecosystem after the project goes in.

Mr. FILNER. But that ecosystem has been built up based on sewage. It's been there for three or four decades. Do you want to maintain a sewage-based ecosystem? Is that your aim here?

Ms. KAUFMAN. The report that was completed by the State Water Quality—

Mr. FILNER. Which is what my constituents think you're trying to do.

Ms. KAUFMAN. The report that was completed by the State Water Quality Board made it apparent, clear, their conclusion was that the riparian area in the Tijuana River is not dependent on the sewage flows, and, therefore, the Service agreed in normal and wet years that indeed that was the case. We are concerned in very dry water years, but it is not our position that we would want to continue to receive sewage in the river. We would be concerned about groundwater and in-stream recharge.

Mr. FILNER. Well, the flow is sewage.

Ms. KAUFMAN. But it need not be.

Mr. FILNER. It almost appears that you're arguing that if you clean up the sewage, you wreck the ecosystem, and you've got to stop it at all costs.

Ms. KAUFMAN. I don't think that's our position at all.

Mr. FILNER. I hope it isn't, but that's the sum total of your efforts over the last few years, it looks to me. I agree with your mission, but I think you've taken it too far—I mean, it seems that you are looking for ways to preserve an ecosystem that has been built up on the backs of thousands of people who have to live with sewage, and I don't think that was the intent of the law, that's not the intent of your mission.

Ms. KAUFMAN. And in fact it doesn't help the ecosystem. As I testified, there are 30 species of fish that are dependent on this area. Certainly, sewage in this system does not help preserve their environment.

Mr. FILNER. I would hope, without pursuing this forever, that, again, you find a way to accomplish your mission within the context of a wider policy goal. A goal to solve this problem as opposed to constantly finding ways to block it. Because "It's been around for a long time, so what's the difference of another few months," that kind of attitude is very damaging to the quality of lives of people who are trying to survive economically and physically. I hope that you would work with the other agencies to solve it.

The treatment ponds alternative, is that something you want a further look at?

Ms. KAUFMAN. Well, it is something that we requested at the time be examined further. I mean, I don't have any authority to change the project description.

Mr. FILNER. All right. Again, I appreciate the testimony, and I fully support your commitment. I would just hope that we find a way that Fish and Wildlife can undertake its mission in the context of human health and safety and within the context of finding ways to move forward and not always finding ways to halt the situation just because the people involved do not seem to have a lot of political clout to keep fighting back at all times.

Thank you, Mr. Chairman.

Mr. BORSKI. Ms. Kaufman, did you care to comment?

Ms. KAUFMAN. Well, I was just going to make the comment that during the course of reviews on this project, the Fish and Wildlife Service has only asked for a delay of two days since 1988 in order to get comments in in a timely manner.

Mr. FILNER. I'm sorry, I had finished, but you had only what?

Ms. KAUFMAN. We've only requested a delay—since 1988, the only delay we requested was two days in order to get our comments in in a timely manner.

Mr. FILNER. I'm not an expert on this process, but I have read your testimony, and it mentions eight or ten times where you objected or disagreed with something that happened, which, as your earlier testimony indicated to me, ends up, in practical terms, in a delay. That is, people have to take it into account, they have to deal with it, and on and on.

Ms. KAUFMAN. But both NEPA and the Endangered Species Act build in those time frames for handling those disagreements. That's what the law allows.

Mr. FILNER. I'm not saying it's wrong that the delays occurred because of your objections, but the fact of the matter is they have occurred. We can ask everyone else what accounted for the delays and I think that your objections would be part of the reason.

Again, I don't want to create a polarization here, but I think we just need to look at these issues within a context that says ecology is a broadly based concept, and pocket mice are part of that, but human beings are too.

Mr. BORSKI. Okay. I thank the gentleman, and I thank our panelists very much for your testimony today.

We'd like to welcome our fourth panel this morning, Ms. Mary Jane Forster, Board Member of the California State Water Resources Control Board, and Mr. David Schlesinger, Director of the Clean Water Program for the City of San Diego.

Please raise your right hands.

[Witnesses sworn.]

Mr. BORSKI. Thank you.

Ms. Forster.

Ms. FORSTER. Mr. Chairman and Members of the committee, if you don't mind, I would like Dave to go first, and I'll be the follow-up.

Mr. BORSKI. Of course.

Mr. Schlesinger.

TESTIMONY OF DAVID SCHLESINGER, DIRECTOR, CLEAN WATER PROGRAM, CITY OF SAN DIEGO, CA, AND MARY JANE FORSTER, MEMBER, CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Mr. SCHLESINGER. Good morning, sir. I'm Dave Schlesinger, Director of the Metropolitan Wastewater Department for the City of San Diego. My background in project management and facilities engineering includes 25 years in the Navy Civil Engineer Corps and three years with the City of San Diego.

I represent our mayor, Susan Golden, who has assigned me the duties of liaison and coordination with the International Boundary and Water Commission, the Environmental Protection Agency, the State Water Resources Control Board, and the Regional Water

Quality Control Board. My staff meets on a regular basis with the technical staff of these agencies, and I meet with the other agency directors as a member of the Executive Policy Committee.

I've submitted a detailed written statement, and with your permission, I would like to just go over some of the highlights.

We've gained several years of experience in large public works projects, and we would like to share that knowledge with the Federal Government.

The city has made several recommendations in the past to the Federal Government that we believe will assist them in expediting this project. The IBWC has already implemented some of these recommendations such as you heard this morning—additional staff assignments to San Diego and working to accelerate the project. However, we believe there are still additional things that can be done, and with your permission, sir, I would like to be specific on the recommendations.

Mr. BORSKI. Please do.

Mr. SCHLESINGER. Number one, complete the improvements to the Tecate Wastewater Plant and Tijuana Pumping Station No. 1. The current repairs and expansion of the Tecate plant must be completed as soon as possible in order to ensure that sewage flows from Tecate do not enter the Tijuana River and the United States.

Also, the improvements to Tijuana Pumping Station No. 1 need to be completed in an expedited manner to assure that there is maximum usage of the existing Mexican treatment system to minimize overflows into the United States.

Number two, obtain from Mexico more accurate and reliable flow data. Numerous concerns have arisen recently regarding the flow projections for the City of Tijuana. These concerns have cast doubt upon the need for the international facilities. More complete and accurate flow data is required from Mexico to demonstrate the need for the plant and to adequately size the plant for the short term and the long term.

The city has concerns as to whether the plant will have adequate treatment capacity when it comes on-line and how long that capacity will be sufficient before additional expansions are required. The IBWC should and is pursuing discussions with Mexico to resolve this issue to allow sufficient time to plan for future needs.

Number three, raise the congressional cap on EPA funding for the international facilities. The city has grave concerns regarding funding for this project and the ability of the Federal Government to construct a plant with sufficient capacity to handle the flows anticipated on the date when the plant goes into operation. Given the cap, the IBWC may not have sufficient funds to construct a treatment facility that will have the capacity to provide a permanent solution and also to provide secondary treatment. The city has reviewed the IBWC's budget, and there does not appear to be enough money within the cap for secondary treatment.

Also, depending upon the outcome of the flow study, the funding level should be revised to provide for a plant that will adequately address present and future flows from Mexico and be at a level of treatment that will protect San Diego's environment.

Recommendation four, construct the international treatment plant as a chemically assisted advance primary plant. Given the

above-mentioned financial constraints, the city and the IBWC have recommended to the EPA that the international plant be built as a chemically assisted advance primary treatment plant. We believe that this proposal has merit in its ability to provide maximum treatment at the lowest cost to the U.S. taxpayer within the congressionally mandated cap. It is also consistent with the city's philosophy of providing similar treatment at our own Point Loma facility.

Although the level of treatment is in accordance with section 510(g) of the Clean Water Act, the EPA has had difficulty in supporting this recommendation because of the Federal lawsuit against the City of San Diego for violations of the Clean Water Act and our lack of secondary treatment. However, the city's proposal is consistent with the recent IBWC proposal and is supported by EPA Region 9 staff to build a plant in a modular fashion, with the advance primary portion coming on-line as soon as 1995.

Recommendation five, provide contracting staff on-site in San Diego. The consultants working on this project and several of the regulatory agencies permitting this facility are located in San Diego County. The city previously recommended that the IBWC assign staff and delegate decisionmaking authority for the project to a San Diego office. The IBWC has reassigned three engineers. The city also recommends the IBWC assign a contracting officer to the San Diego office.

With the first construction package just a few months away, it makes sense to have the contracting officer in San Diego so that crucial decisions regarding the construction contract and change orders can be made quickly in the field, without having to be sent back to headquarters in El Paso for a decision. The time schedule for the construction of the international facilities is extremely tight. On-site decisionmaking authority will be required if the schedule is to be met.

Recommendation six, expedite the construction of the South Bay ocean outfall. Under the currently proposed schedule, completion of the ocean outfall lags completion of the treatment facilities by over a year. The schedule, therefore, requires that interim measures be taken to ensure that the plant can be operated when it comes on-line before the completion of the outfall. The city proposes that the design and construction of the ocean outfall be accelerated by bidding the project at the 50 percent design stage. This will allow the contractor to begin work on the fabrication of the tunnel boring machine that will be required for construction while the final design and permitting is being completed.

Finally, recommendation number seven, designate the City of San Diego as a recipient of section 510 funds. Under section 510 of the Water Quality Act of 1987, there is a special provision which allows the President to designate agencies to receive funding through the Environmental Protection Agency for the planning and construction of the international treatment plant. The city has recently been recommended by the policy committee as the construction manager for the ocean outfall. Designation of the city as a recipient of section 510 funds will allow the EPA to provide funding directly to the city for construction management and avoid costly overhead charges and delays incurred by transferring the funds

through several intermediate agencies prior to arriving at the city. The city has previously requested that the President designate the city as a recipient of 510 funds, and we are still awaiting a Federal response.

Thank you for inviting me here today to speak to your committee. On behalf of the mayor, I would like to again reiterate that the city fully supports the Federal proposal to move forward with the international treatment plant on an accelerated schedule, and we are committed to doing whatever we can to assist the Government.

Thank you.

Mr. BORSKI. Thank you, sir.

Ms. Forster.

Ms. FORSTER. Mr. Chairman and committee Members, I am a substitute today for Mr. Jim Stubchair, who is a member of the California State Water Resources Control Board and who has been the policy member on a panel on the international problem of border sanitation issues.

I come today because I think this project is very, very important. For the record, my name is Mary Jane Forster. I will not read the testimony. It wasn't my testimony. It was going to be Mr. Stubchair's testimony. So my mode of operation today will be to speak from my heart, what I experienced in the 10 years that I was on the Regional Water Quality Control Board, and to say that I totally support what Dave has presented.

In my experience in working with people from all over the State, foreign visitors, and people in the San Diego community, the City of San Diego knows, perhaps better than anybody, what the solution should be. They're the ones that have had to deal with it in their community. It's been a very tough struggle, and I think that the plant that's proposed right now, the advance primary plant, is absolutely critical and needed, and it should happen as soon as possible.

I almost lost my life flying around the border, trying to teach people and educate them, on what a horrible, horrible problem border sanitation issues are to the border States and to the people that live in those communities and to the visitors that go there. It's been a real disgrace for me, being on a regional board, to have to close the beaches year after year. It's been really a sad experience to go down and visit the border and see what's happening.

So I only came here today, having rearranged my schedule, to totally support what Dave has to say and totally support the efforts of all the people who have worked on this project. I think that Mr. Gunaji brought a new life to this problem. I have a lot of feeling and a lot of respect for Congressman Filner for having this hearing, and I'd just like to say that it's absolutely critical that you move forward and solve the problem as expeditiously as possible.

I know that you have questions for the State of California, and what I'd ask you to do is ask them. I probably won't be prepared today to answer them, but I will get back to you immediately, when I get back to California, and try to address your issues.

Mr. BORSKI. Okay. Very good.

Mr. Schlesinger, let me ask you first, when does the city intend to make a final decision, approved by the city council, on its capacity and needs in cost-sharing of the ocean outfall?

Mr. SCHLESINGER. As I discussed, Mr. Chairman, with the policy committee last month, we have docketed that item for April 25th before the San Diego City Council.

Mr. BORSKI. Ms. Forster, do you believe that the information that the State collected on Tijuana sewage flows during a four-hour period is reliable enough to conclude that a treatment plant is not necessary?

Ms. FORSTER. No.

Mr. BORSKI. In your testimony, you raised the possibility of building advance integrated treatment ponds as part of the treatment plant. What portion of the sewage would be treated by these ponds?

Ms. FORSTER. Last night, I asked Mr. Stubchair about that issue, and I asked Dave this morning, as we were sitting in the audience waiting to come before you. As I understand it, the staff is looking at this with EPA as expeditiously as possible. It's a way to do secondary treatment and may be a less costly affair. I know it's land-intensive. I don't know enough about it to say much more.

My perception is, it's a good idea to look at, as quick as possible, but the immediacy of getting something in place, a facility to take care of the problem, overshadows anything that we're looking at in the peripheral.

Mr. BORSKI. Let me ask you a couple of questions, and if you don't know, you could supply the answers for the record. How many acres of land would they require?

Ms. FORSTER. I don't know that. I'd have to ask Dave.

Do you know?

Mr. SCHLESINGER. I'm not familiar with the specifics of the proposal, although I was at the public hearing when it first came up, and it would be my recommendation that if this particular type of pond technology is studied, it be studied as a potential for perhaps the first expansion of the international plant, but not do anything that would get in the way of the design and planning, as Dr. Gunaji has pointed out, of the existing facility.

Mr. BORSKI. What evidence do you have that biological ponds can effectively treat more than 25 million gallons per day of wastewater that the mechanical plant was designed to treat?

Ms. FORSTER. Mr. Chairman, I feel I should have had time to do my homework. When I heard that no one from the State was coming to this hearing, I said very courageously, "I will go, no matter what, because this is so important." I know for one thing, in the short time I had to study, that these ponds have never been done on this scale before. I know that ponds can be very effective and they've been done on a smaller scale. I know they have been designed by a professor in Berkeley. But I do not know and have any accurate information to give you now. I will get it to you.

Mr. BORSKI. The gentleman from California.

Mr. FILNER. Ms. Forster, I was delighted by your testimony, but a little puzzled by it. Are you speaking for the Water Resources Control Board today?

Ms. FORSTER. I think so.

Mr. FILNER. Because the testimony that was submitted to us in advance said exactly the opposite of what you just said. So enlighten me.

Ms. FORSTER. I'm speaking as a board member, and I've asked Mr. Stubchair how he feels on this issue, and I'm addressing his feelings on this issue. There are two different groups going on here. There's a policy committee that Mr. Stubchair's a registered civil engineer, and Dave, work together on. Then there's a technical committee, which has participation of staff of the State Board.

Because I haven't really had the opportunity since the mid-1980s to be directly involved in this problem, I haven't read all the background material. So I'm speaking as a State board member who believes in exactly what I said, and I think I have the support of Mr. Stubchair. I know I do. We haven't voted as a board on this issue, because it isn't a State Board issue.

Mr. FILNER. If the board's comments exactly conflicted with what the IBWC is doing on several counts, can they halt that? I mean, are their comments meaningful, Mr. Gunaji, in a legal sense?

Mr. BORSKI. At this point, the gentleman from California will have to address his questions to this panel.

Mr. FILNER. I'm sorry, Mr. Chairman.

That is, comments were made on the IBWC proposal, the initial comments. I'm glad to hear that they're revising them. But in any case, what is your role in this whole process? Do your comments have the force of law or the force of reality in the sense that they could halt the process?

Ms. FORSTER. I hope so. In taking the oath and telling you the truth, the comments that were sent to you are comments that were part of a status report not exactly designed for this hearing. But I know that when you come to a hearing, you have to have something to submit, and I picked them up as I ran to an airplane. Later I called on the phone to my office, and said, "I don't think this answers the question of the letter we received, but if this is the best we have, I'll take it, and when I get there, I will just speak as frankly and as honestly as I can on the situation."

Mr. FILNER. Okay. As I understood from when I talked to the Water Resources Board earlier and what they had said in writing, they did not believe that this plant was necessary, that they could do something on the Mexican side, and that, in any case, a ponding solution at the scale that we are talking about wasn't viable, and it looks like you're revising both those judgments, which I am delighted to hear.

Ms. FORSTER. I believe what I said.

Mr. FILNER. Thank you.

Mr. Schlesinger, several of the agencies, when asked specifically about delays or what caused delays, pointed to the city's decision—I'm not sure we can label it "decision"—rather an attitude, that the contribution amount would be reduced because of the change in the city's Metro plans, and, therefore, both because of the design changes that were necessary and the cost adjustments, that they were held up. I'm just wondering, has the city made a decision on its actual contribution, and if you've read the other testimony or heard it, how do you react to that?

Mr. SCHLESINGER. Well, to begin with, Congressman Filner, the city reduced its portion of shared funding in the outfall, as you know, as a result of the city council's decision to adopt an advance

primary consumer's alternative project. The city never was involved in cost-sharing of the plant itself.

On several occasions during the period from July to September 1992, I discussed with the International Boundary and Water Commission the fact that the city always intended to construct some facilities on the western part of the site, and I recommended strongly against any decisions to move to that part of the site. They did that anyway, and that contributed to a certain amount of the delays, because as you know now by their own testimony, they switched from the east to the west and now back to the east.

The issue of the interconnection between the city's plant and the IBWC, I don't believe that discussion ever got to the detail that it would cause significant delays to their design. I do believe that the issue of the city talking about a lesser cost-sharing in the outfall contributed to the decision to do some redesign on the outfall, but as I mentioned to you, we are now back to discussing numbers very close to what the original city commitment was.

I met personally last week for a couple hours with the designer of the outfall, and he told me it's minimum effort to make the design changes required in the outfall. A long way of saying I don't believe all the delays are attributable to the city.

Mr. FILNER. I guess I misunderstood, then, what I had read earlier. The city had never committed itself as a percentage of the actual plant, but only for the outfall?

Mr. SCHLESINGER. No, sir. Just the outfall.

Mr. FILNER. Okay. Has there been a final decision on that?

Mr. SCHLESINGER. It's getting pretty close. On the 25th at the council session, I have recommended a number that's in between—actually, it's fairly close to what we were at before consumer's alternative.

Mr. FILNER. Which is about a third?

Mr. SCHLESINGER. Well, no, the original city intent was to construct 81 MGD worth of capacity in the outfall under alternative 4(a). I am now recommending to the council we go to 74, which is fairly close. At one time, the city was as low as 32. But, again, that affects—

Mr. FILNER. I'm sorry, is that MGD?

Mr. SCHLESINGER. MGD.

Mr. FILNER. So what percentage of the cost—

Mr. SCHLESINGER. The original percentage was about 42 percent. It went down to 22. We're now recommending about 39.

Mr. FILNER. Okay. You're going to be recommending 39 percent.

Mr. SCHLESINGER. Yes, sir.

Mr. FILNER. Okay. Thank you very much, and thank you for being here. I know you have a plane to catch, so thank you again.

Mr. BORSKI. Okay. Are there any further questions? The gentleman from Tennessee, Mr. Duncan.

Mr. DUNCAN. Let me just ask this, Mr. Schlesinger. I notice in the testimony of the officer from the Army Corps of Engineers, he says that the Endangered Species Act is going to require all this work to be done on the Pacific pocket mouse. Do you think that's going to hold things up?

Mr. SCHLESINGER. I don't know that much about the Pacific pocket mouse. I can tell you, Mr. Duncan, that in the many projects

that we've worked on, there are always environmental issues that are going to come up. You have to be flexible on them.

One of the issues that I have recommended to the Federal Government in this case, the city, the county, and the State of California have declared states of emergency in order to help move through some of these issues, and I submit to you, sir, that the Federal Government consider doing the exact same thing to determine whether or not perhaps the welfare of the citizens is more important than environmental documentation.

Mr. DUNCAN. That's exactly my feeling, and I want to say that, you know, I read in your testimony—I'm having to go between several different meetings here, and I read where you say, "This flow is a serious threat to the region, creating critical health hazards for local residents, forcing the closure of popular beaches, severely impacting local businesses, and causing unknown environmental harm to the groundwater" and so forth. Apparently, it's a serious health hazard. Is that correct?

Mr. SCHLESINGER. Absolutely, sir.

Mr. DUNCAN. I just get so disgusted that we have gone so far overboard on this Endangered Species Act that it seems to stop all of these really necessary projects and that we seem to be putting things like the welfare of the Pacific pocket mouse ahead of the welfare of human beings, and I just think that is really sad, and I want to state for the record that I hope this project isn't held up by environmental extremists who are causing real harm to the poor and working people of this country.

Now, let me ask you this, something else I'm wondering about. Under NAFTA, we set up an environmental commission to study all of these pollution and environmental problems between Mexico and this country. Has that commission looked into this in any way at all that you know of?

Mr. SCHLESINGER. I don't interface directly with the Mexican section of the commission, but I can tell you, sir, that our mayor has a very close working relationship with her counterpart, the mayor of Tijuana, and she has directed my department to provide technical interface with them, and in the last six months I have seen more of my counterparts down there who have actually come and looked at the telemetry in our pump stations, how we operate our plants.

So it's my considered opinion, based on this increase of visits, that the federal government of Mexico is serious about doing some environmental upgrade of their capital system. That's my opinion from dealing with my counterparts not in the Federal sector, but my counterparts in Tijuana.

Mr. DUNCAN. Do you know that the original estimate of the amount of Federal money is \$239 million? Is that correct?

Mr. SCHLESINGER. Yes, sir.

Mr. DUNCAN. Based on everything you know now, do you foresee cost overruns, or do you think that we're going to be able to bring this project in under or at budget?

Mr. SCHLESINGER. Sir, based on the information that the IBWC has shared with my staff, we do not believe this project can be built at the secondary treatment level for the capacity required to take care of the renegade sewage within the congressional cap.

Mr. DUNCAN. How much more do you think it's going to cost?

Mr. SCHLESINGER. That's a very difficult question, because I'm only operating with the numbers that the IBWC has given us, but I would say it's in excess of \$50 million short.

Mr. DUNCAN. All right. Thank you very much.

Mr. BORSKI. The gentleman from Oklahoma?

[No response.]

Mr. BORSKI. The gentleman from California?

Mr. FILNER. Just quickly, Dave, I'm sure you were happy to hear the State testimony today, but your opinion is that the problem is even greater than some of the estimates that have been worked with. Is that correct? I mean, why do you think the problem is even greater than the current estimates?

Mr. SCHLESINGER. If you're discussing the issue of the flow, I've been on the firing line with the city council to explain why the treatment that is taking place at Point Loma hasn't been totally reimbursed by the Federal Government, or hasn't been in the past until you got involved with getting a line item in their budget, and based on that and just looking at the numbers, I just don't think we have a good enough handle to make statements that a smaller plant is going to be needed, and the flows are very cyclical. There's just so many issues with the changing demographics in Tijuana that I would concur with the IBWC that building for much more capacity in the initial design and construction is prudent engineering.

Mr. FILNER. Thank you.

Thank you, Mr. Chairman.

Mr. BORSKI. Mr. Schlesinger, let me just ask, it took about seven years, as I understand it, to come up with the financial agreement to make this plan operational?

Mr. SCHLESINGER. That's not my area of expertise, sir. I don't know.

Mr. BORSKI. There was an agreement in principle, I guess, in 1983?

Mr. SCHLESINGER. Again, that's an issue that you'd direct to the IBWC, sir.

Mr. BORSKI. I was curious, in your view, if you could tell us how much of the delay thus far has been caused by the Fish and Wildlife Service or the Endangered Species Act as opposed to financial agreements or other design work?

Mr. SCHLESINGER. I don't think I could give you an accurate answer on that, sir. There have been a lot of things playing on this project, but I couldn't give you an adequate answer.

Mr. BORSKI. Okay.

Ms. Forster, we want to thank you for your efforts today and your honesty and appearing here and answering our questions and the efforts you took, and we understand you do have a plane to catch.

With that, let me thank you very much for coming here today and your testimony.

Let me announce to everyone that to accommodate the EPA, we will have to recess until 1:30. So the subcommittee is in recess until 1:30.

[Recess.]

Mr. BORSKI. The subcommittee will reconvene.

We'd like to welcome our fifth panel, Mr. Robert Perciasepe, Assistant Administrator for the Office of Water for the United States Environmental Protection Agency. Mr. Perciasepe is accompanied by Ms. Alexis Strauss, Deputy Director of the Water Management Division for the U.S. Environmental Protection Agency, Region 9.

May I ask you to please rise and raise your right hand?

[Witnesses sworn.]

Mr. BORSKI. Mr. Perciasepe, welcome. As I mentioned to the other witnesses, we have your written testimony, I believe, and that will be made a part of the record, and you may proceed in any way in which you're comfortable.

TESTIMONY OF HON. ROBERT PERCIASEPE, ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, DC, ACCOMPANIED BY ALEXIS STRAUSS, DEPUTY DIRECTOR, WATER MANAGEMENT DIVISION, U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 9, SAN FRANCISCO, CA

Mr. PERCIASEPE. Thank you. What I would like to do, Mr. Chairman, after a very brief introduction, is read from the charts here, and then proceed with the questions and answers. You do have the written testimony, and we will also hand out 8.5 by 11 size charts that I'm going to use.

Mr. BORSKI. Yes, we have them.

Mr. PERCIASEPE. Let me give my introduction. Good afternoon, and thank you for inviting me. You've already introduced Alexis for me, and she's here from our San Francisco Regional Office and has been intimately involved with this project and with our recent efforts to accelerate things.

I guess what I'd like to say at the outset is that I'm proud of the work that's been going on over the last year and even more intensely over the last six months to expedite and get things moving, and I hope that you heard some sense of that today from some of the witnesses, and I'd like to maybe drive that home a little bit. You know that we're trying very hard to get the first phase of this project operational by the end of next year, and as I'll show on the chart, it's a little more than two years ahead of what our schedule had, at least for getting treatment on that wastewater.

What I also want to do, I think, for this committee is to personally tell you that I intend to do all I can to keep this project on track. I think it's extremely important environmentally, it's extremely important economically when you talk about the communities that are impacted both from tourism and their own enjoyment, as well as the public health, and all these issues are very important in this project and are reasons for us to move ahead as quickly as possible.

I also would like to thank Congressman Filner, who, very shortly after I was sworn in as the Assistant Administrator, invited me to his office to explain this project to me in some clear detail—

Mr. FILNER. I was at his door waiting for his appointment.

[Laughter.]

Mr. PERCIASEPE. Since that time, I've been certainly keeping an eye on it and trying to see things move ahead.

I guess the last thing I'll say by way of introduction is that I am personally committed and the Administrator is committed, as well as the Region 9 office, to do and take all necessary actions to keep this project on the kind of track that we're starting to see evolve here.

I'm going to speak loud, and I think you can hear me without the microphone. I'll stay next to the recorder here so that she can hear me also.

Just to orient us for my sake a little bit as well as what we want to talk about, we have the City of Tijuana just south here, a pumping station that's located here that takes the flow through the Tijuana wastewater treatment plant. We have the emergency connection to the San Diego system, which we've been using. We have, of course, the Tijuana River flowing here through the Tijuana River National Estuarine Reserve and into the ocean here and toward the City of Imperial Beach and San Diego a little but further to the north.

All of this system is impacted by what we're discussing today, and I think it was exacerbated last year by the rains that we had that created increased flows in the Tijuana River, increased sewer overflows, and currently is a situation that cannot even be kept up with with the emergency connection to the City of San Diego. Of course, this plant down here was completed in 1988.

You all probably know pretty much what's been going on in Tijuana over the last 50 years, but just by way of orientation, in 1928 there were about 500 people living in Tijuana, and now the total is a tad over a million, and we've got a situation where that kind of growth and that kind of impact on the environment is just astounding, and those of you who have been there know better than I what needs to be done.

The very early schedules on this where we originally said "Let's do this in four years" back in the late 1980s I think was probably, for all good intentions, overly optimistic. When you look at other projects around the country that are not even as complicated as this, with estuaries and international borders and ocean outfalls, all of which in themselves are complex factors in building a sewage treatment plant, we still have sewage treatment plants of the size that take five, seven, and in some cases, if you have an ocean outfall, could be up to ten years. So we may have been starting—and this is, I think, truth in lending here—with an overly optimistic schedule.

But at any rate, what we have done is tried to get this thing on a fast track, and we've made some very deliberate decisions in a policy group that's made up of the groups that are working on this—the City of San Diego, the International Border group, the State of California, EPA, and we have other people that are involved—and we've done a couple of things that I'll get to in a minute.

But the idea here, quite simply, is to phase the project into phases so we can get away from the tangle we've been in over the ultimate solution, and we still have, I think, a vision for the ultimate solution, but we want to make sure that we get something going right away, and that's why we're fast-tracking the advance primary treatment plant, again, which we hope—and I think there

was testimony today that the advertising should be occurring this week—to get that going, and we hope certainly by the summer to have something under construction there, with completion by the end of next year. Again, that's getting all the wastewater treated, compared to waiting until some future date.

The secondary treatment plant, again, is in design, and we'll have to look at some of the funding issues, which I'll get to in a minute, on that, and the ocean outfall, which is also in a more—we've made some decisions that needed to be made on the outfall in terms of getting it around or under the estuary and the wetlands there, and I think that that is now moving on a steady course.

I'm going to put this schedule here. You have it in front of you if you need to refer to it.

I just want to highlight some very significant things that I think have happened in the last six months that have helped this acceleration. In September of last year, the group made a decision on the tunnel outfall, to go under rather than around or over the estuary. In November of last year, we decided on this modular fast-track approach. In February of this year, there was the issuance of the final EIS, which we'll go into more in a minute.

Last month the policy committee, in a meeting in San Diego, agreed to propose to have the Corps of Engineers do some of the construction management, while the design is being managed by the International Border Commission. They're proposing that the construction management for the plant be handled by the Corps of Engineers and that the outfall, the City of San Diego would be involved, with its wealth of experience in building these kinds of things, and it only makes sense from everybody's standpoint to have that kind of collaborative and partnership approach to getting this thing designed.

In April, again, we hope that the first bids are advertised, and I understand—I wasn't here this morning—that that was announced, that they've already done that, and that's just great and exactly what we need to have happen.

So these are things very concrete over the last six months that have gone on to try to break this pattern of non-action into a pattern of action, and I think that this has been good.

The last thing I'd like to go over with you by way of my introductory comments and then take the question-and-answer, I think there have been a lot of questions about the project cost and the money available to do this. I've tried to do this as straightforward as I can, and there are still some variabilities in here that I'll try to explain.

The cost estimates that you see broken down here for the different components—advance primary, the land outfall, the ocean outfall—the subtotal for the advance primary stage is \$313 million. Again, these are estimates, current cost estimates. The incremental cost on top of that for the secondary treatment facility is \$70 million, for a total of \$383 million. Again, these may vary.

There's a number of other options that are being looked at to see if we can, one, accelerate, and, two, look at ways to cut costs. But that's our best current estimate, and that really hasn't changed a whole heck of a lot since 1991 or so. As we get real bids, we will

probably have a better feel for how these things are starting to appear.

Now, on the funding side—in fact, I was with Appropriations this morning, and we were talking about the last increment of funding in the President's 1995 budget. The President has proposed \$52.5 million to finish the funding up to the cap that's been provided by Appropriations. We've had some funding from IBWC, funding commitments from Tijuana and Mexico.

San Diego, now, it says \$73 million there, but let me put an asterisk on that, because—I think there may be an asterisk on yours, I'm not sure, this is going to depend on the capacity that the city determines it needs in the outfall. Again, this is going to be linked to other negotiations the agency is going to have with San Diego on their ultimate wastewater solutions. But to the extent that reclamation or other plants on the south side of San Diego will need some of this outfall, I think they're in the process of looking at it, and I've assumed, just for the sake of adding numbers, around a 35 percent contribution.

The State of California has so far committed \$5 million. So what we probably have a reasonable expectation to have in terms of funding is about \$337 million. Again, that could vary a little bit based on what still needs to be worked out: Congress still has to get the \$52 million, we still have to make the final determination with San Diego, and so on, but I think we are in that zone.

Now, that would leave—you see the subtotal for the advance primary, which includes the ocean outfall, of \$313 million. That leaves \$24 million available for something that looks like it might cost around \$70 million. So there's a potential shortfall here, and I'm just being straight, as best we can tell, of about \$46 million.

Now, depending on how this falls out in terms of some of the early bids and more refined cost estimates as we do more detailed design, depending on how we end up with San Diego on their needs and our discussions with them on their overall sewer system, both of these numbers may vary a little bit, and this could go up or down. I think once we're a little more certain on this, which we have a little bit of time on because we have money to do what we're fast-tracking now, we will have time to go back and work with all of the parties to figure out how we will pick up the shortfall, whatever it is.

So I would not propose at this particular time going back to Congress to raise the cap until we have something more certain. I don't want to get in a position on my watch of saying I need another \$40 million and I need another \$70 million, or I need another \$40 million and I only need \$20 million. I think we've got a little time and a little bit of cushion to do that.

I think that's another beauty of the phased approach here, that we solve a health problem, we begin to solve an environmental problem, and at the same time we provide the flexibility so that we can be doing this fast while we're trying to get the money in place, rather than waiting for everything to be perfect.

I guess I'll just reiterate my commitment to pushing this as far as possible and working with all the folks that you've heard from today to resolve the issues as they come up. That's sort of a sum-

mary of where we are, and we would be more than happy to answer your questions.

Mr. BORSKI. Good. Thank you very much, sir. Let me ask first, if I may, I'm a little curious about the contribution by the State of California. People in the United States are contributing a great deal toward this project. The people of San Diego appear to be prepared to contribute a great deal as well. Yet the State of California seems to be contributing less than a great deal, particularly if we were to need additional funding, and it's my understanding that originally the State of California was prepared to contribute 10 percent of the cost but are no longer in that position or desire.

Mr. PERCIASEPE. It's my understanding that they had originally committed 10 percent. I don't know that that was ever in writing.

Ms. STRAUSS. I don't know if it was in writing, but I know that subsequent opportunities through the ballot to put bond measures forward for the additional money have failed. We should, though, acknowledge that their technical staff are assigned pretty much full-time to this, and so they are making a substantial contribution, albeit not in the capital cost kind of way that we'd like to see.

Mr. PERCIASEPE. I would say that as we get this—even probably before we get this refined, there probably should be continuing conversations with the State, because I think the State, as Alexis has pointed out, is involved with this, they're helping us look at some of the alternatives, they're doing some engineering on some of these systems, and I think that ongoing discussion with them on the overall program is appropriate.

Mr. BORSKI. EPA has recently decided to organize a technical review committee to evaluate a technology called advance integrated ponding systems for possible application to this project. In the recent final environmental impact statement, EPA considered four options for the construction of this plant. None of these options involved ponds. Ponds were only briefly mentioned as an option that you didn't take seriously enough to fully evaluate, in my view. Why is pond technology being considered now at such a late date that it could only further delay this project, and why wasn't it fully considered earlier?

Mr. PERCIASEPE. I'll make some general comments, and maybe Alexis can fill in some of the details. First of all, we don't want it to hold up the project, but by the same token, there's enough information out there that we want to make sure that we don't make any big mistakes. So having another level of review and involving the State in that, which has to be intimately involved with that kind of a process, I think is appropriate. But we are in no way proposing to slow down or stop any of the work that we have under way.

Alexis, you may want to talk a little bit about the technical committee.

Ms. STRAUSS. Over the last few months, two things have changed. One is, late last year, in the absence of having enough flow data from the Mexican government, the IBWC and the State worked cooperatively to get some more on-the-ground flow information on the other side of the border. On that particular day—remember the four hours of measurement that you referred to earlier with the panelists? They had taken some measurements and really

questioned how accurate our working flow estimates are for the plant, and at that time, it suggested for that day, anyway, that they were quite low.

At the same time, a company or an entity known as Swanson-Oswald brought forward a pond proposal that suggested that one could have this kind of a system on much less acreage than had been previously evaluated. When we brought out the draft EIS in 1991, we did in fact consider ponds, and because of the conventional idea of how much acreage they would need and how big our site is, we knew that we didn't have enough room to build a pond system. We have no known examples of a pond system able to operate at the 25-million-gallon-per-day capacity that we are proposing. In fact, one of the limiting factors is that even if we were to embrace belatedly a pond system, we couldn't expand for the flows that we're projecting through 2010.

So, yes, the group is meeting next week to do the engineering evaluation. We've developed 10 criteria to look at the ponds. But I have a feeling that we will still emerge with the reliability and the expansion capability of the mechanical plant.

Mr. BORSKI. Did you suggest that it was more than the four-hour flow study that you were basing this on?

Ms. STRAUSS. When they did their four hours of measurement, that triggered enough questions about us needing for the mechanical plant itself to have more reliable flow information that the IBWC, as they had referred to in their testimony, has installed a number of continuous measurement points in the system so that we will have better flow data that we have not been able to get but are now getting.

Mr. BORSKI. Let me yield at this point to my friend from California, Mr. Filner.

Mr. FILNER. Thank you, Mr. Chairman.

Thank you, Mr. Perciasepe, for being here and for your commitment to this project and getting it done. I had several conversations in my first year here with the Administrator, who kept saying, "Wait until the water person gets here." So the water person is here, you're carrying the water, you're carrying the sewage, and I hope that it does get done.

Just two questions or two kinds of thoughts. By the way, because of our time constraints today, I hope, Mr. Chairman, that I may be able to submit written questions for the EPA and the other agencies that our committee can expect answers to.

The only down side of this phased approach, which you rightly said gets it on track, is that some questions have not been answered, and there may be a legal challenge to the EIS by the local Sierra Club in San Diego which looks at the lack of looking at some of the alternatives, which looks at how the effluent's going to be discharged in the interim, flow assumptions, several things which should not hold up the first phase, but because you've done the first phase and you haven't answered it, they want a supplemental EIS.

Are you doing a supplemental EIS, and what is your response to these kinds of concerns that may result in court action? And I hope it does not, but you'll have to respond to that, I take it.

Mr. PERCIASEPE. I certainly hope it does not result in court action, either, because I think that would be in no one's interest. I think in terms of some of the alternatives, we are continuing to make a bona fide effort to make sure we've covered all those bases. I think that we've done a pretty good job of analyzing the alternatives and zeroing in on what has to be done, trying to mitigate the impacts of the outfall.

I think you already heard that there's one more thing that we have to worry about at the plant site. But I think that we are not deterred from that at all. That doesn't say, though, that we don't want to—and will—talk to and try to work with the various groups, including, obviously, the Sierra Club, and try to address and discuss their issues.

But it certainly would be my intention to get this first phase under way as soon as possible, and that's certainly my intent, and even if there is a concern about some of the longer-term issues and some of the other questions that a community of people feels need to be further answered, hopefully we can have another process of some kind to do that and not slow down or stop our initial phase.

So I'm certainly open to and I know Region 9 office is open to and willing to meet with whoever we have to meet with to work on those issues.

Mr. BORSKI. So there's no supplemental EIS now being done?

Ms. STRAUSS. No. The final EIS is out, and we're planning to issue the ROD the first week in May.

Mr. BORSKI. The what?

Mr. PERCIASEPE. The record of decision.

Ms. STRAUSS. Excuse me. I shouldn't speak in acronyms. The concluding element of the EIS process is issuing the record of decision about which alternative we've chosen and the basis for doing so. We're planning to do that in early May so that the bid process that the IBWC began to describe can continue so that we can evaluate bids in May, select the contractor in June, and start site grading in July. So the key is that we have to finish the EIS process.

Mr. BORSKI. What was the May 23rd date?

Ms. STRAUSS. It was to evaluate the bids that have been solicited.

Mr. BORSKI. Okay. And when do you think grading can start, did you say?

Ms. STRAUSS. If we all evaluate the bids at our policy committee meeting in May, the contractor can be selected in June, and site grading would begin on schedule in July. So that would be the ribbon cutting that folks would look forward to.

Mr. BORSKI. And you don't see anything on the horizon, including the Fish and Wildlife comments or anything, that might slow that down?

Mr. PERCIASEPE. Let me give a general view, and then you can go. I think that there are a number of problems with the whole thing that I think we've got to keep our eyes open and understand that they're there, not the least of which is the cost to complete the whole thing. I mean, what happens if the bids are so out of line and we have to rebid or something was wrong? I mean, I've done

enough of this in my past life to know that you always have to expect the unexpected.

So there's that possibility that we could end up being hung up on the cost-sharing arrangements for future phases, we may have a problem with the flows and how that lays out, and then we have the different Endangered Species Act things, and then what you just mentioned, the potential challenge to the EIS. I mean, I don't want to say that those aren't real things that we have to be concerned about, but what we'd have to do is manage that and do the right thing and work with those groups and jump those hurdles as they come.

I mean, there's no way to do something on a fast track and get something done without having to jump hurdles while you're doing it, and I think in terms of the EIS, we will have to have more conversations with the Sierra Club and others before the record of decision so that we can try to reach an understanding.

Mr. FILNER. Just one final question. In the fast-tracking and getting over these potential hurdles, as you know, the City of San Diego, the County of San Diego, and the State of California have all declared states of emergency because of the health hazard. Have you considered under your authority within EPA to issue a state of emergency so you may get through some of these hurdles a little quicker? Do you have the authority to do that, and have you considered doing it?

Mr. PERCIASEPE. I'm going to have to say, because I'm under oath, that I don't know whether I have that authority or not or whether the Administrator does. I don't know. And if we do have it, I know that I haven't personally considered it.

Mr. FILNER. I would hope that you would look into that.

Mr. PERCIASEPE. We will.

Mr. FILNER. I can give you some opinion that says you do have the authority, and just keep it in mind as some of these hurdles approach, because we do have—and I'll just again thank the Chairman for allowing us to have this opportunity today—because we do have an emergency. I mean, there are literally, as I said, tens of thousands of people that face health problems and I've seen health problems in the children I've met. Some of the parents think that asthma and other things have been attributed to living in the situation, and we may have some long-term health problems in any case. But certainly the constant threat of malaria and encephalitis is there, and I would hope that you would recognize that and, if necessary, take that authority.

Thank you again, Mr. Chairman. You and your staff have done an incredible job of familiarizing yourself with an issue in one corner of the Nation. All the lead agencies have done a good job of informing themselves of it. There are some different perspectives on it, but I think today we've decided that we're all on the same wavelength pretty much and we're going to solve this problem.

Mr. BORSKI. I thank the gentleman.

Let me ask two other questions, if I may. I want to get back to the question of the ponds again. What portion of the sewage would be treated by the ponds?

Mr. PERCIASEPE. I'm going to let Alexis answer, if that's all right.

Ms. STRAUSS. In the schedule that you see at the bottom for advance primary treatment, the first module is planned to be a 25-million-gallon-per-day module. The ponds as proposed recently by Swanson-Oswald would be 25-MGD ponds as well. That's where the similarity ends, and that's why my earlier comment about we believe that the additional modules to serve not only average, but also peak wet weather flows are an essential component of the mechanical design.

Mr. BORSKI. Do you know how many acres of land it would require?

Ms. STRAUSS. Originally, I believe it may have been close to 100, and now they believe it can be done on 26. I have a copy of their proposal, and they say a 13-MGD advance primary plant could be built on the 26 acres presently owned by the Federal Government. A 25-MGD secondary treatment plant could be constructed on the net 130 acres. The dilemma is, once we go beyond that initial module, we're out of room, and one could assume that you could go out and purchase more land, but we haven't yet been able—I mean, we don't presently need to do that if we go with the mechanical plant.

Mr. BORSKI. Do you know if it would delay us with all the other studies that would have to be involved? How long would the delay take, in your view?

Ms. STRAUSS. If we switch to ponds? Assuming that the record of decision had been issued, we would need to then prepare a supplemental EIS, we would need to develop more detailed information with the experts that the State of California has assembled, we would need to make a policy decision at the executive level about whether to begin an acquisition process for more land to be able to build more and bigger ponds for beyond the 25-MGD capacity. So we would certainly not be within the time frame of turning on the plant in the 1995 time frame that we're currently focusing on.

Mr. BORSKI. Do you know how much beyond that it would be?

Ms. STRAUSS. I don't know exactly, because the great area of doubt on the policy committee is, how do you extrapolate the fact that there isn't a working example of ponds of this size?

Mr. BORSKI. Mr. Perciasepe, let me ask you, Dr. Valenzuela of the State Department spoke earlier today of setting up an inter-agency working group in Washington to look at the international plant project. Would you support this idea?

Mr. PERCIASEPE. I think we're sort of doing that already, so it wouldn't be a major hurdle. But I think if there's a Washington component to this, and I think there already is, to a certain extent, I would want to limit it to resolving interagency issues in an expeditious way and let the people in the field in the State of California and the City of San Diego and the district and the IBWC do their work, and if they have problems, rather than letting it sit for months or weeks or, God forbid, years, that there's an activated and knowledgeable set of executives back in Washington that can just hopefully resolve it fairly quickly. I would like to limit it to that.

Mr. BORSKI. Okay. Any further questions?

[No response.]

Mr. BORSKI. If not, let me thank our final panel for your testimony today. It has been very helpful.

[Subsequent to the hearing, the following was received from Mr. Perciasepe:]

ANSWERS TO QUESTIONS SUBMITTED
BY CONGRESSMAN ROBERT A. BORSKI
CHAIRMAN, SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
HOUSE PUBLIC WORKS AND TRANSPORTATION COMMITTEE
FOLLOWING THE HEARING ON APRIL 13, 1994
ON THE INTERNATIONAL WASTEWATER TREATMENT PLANT
IN THE TIJUANA RIVER VALLEY

QUESTION 1:

Are you prepared to ask Congress for more money, if necessary, to ensure that the international plant reaches secondary treatment?

ANSWER:

Current project cost estimates indicate a potential shortfall of \$46 million, based on the current estimated project cost of \$383 million. However, imposition of the accelerated construction schedule has forced a reappraisal of project cost. New figures could be higher or lower, and we will not receive final construction bids until late in 1995. In addition, project cost shares for the State of California and the city of San Diego are fluctuating and efforts are underway to increase Mexico's share of project cost. In light of this, and without more specific and reliable cost figures, the Administration has not asked Congress for a higher cap.

Project plans call for design of a secondary treatment module when the advanced primary module design is completed. EPA is committed both to a high level of environmental protection and to following the relevant requirements of law. The Clean Water Act requires secondary-level effluent treatment, except in very limited circumstances.

QUESTION 2:

Does EPA have the authority to declare a State of Emergency and, if so, has the agency considered issuing one for San Diego? What impact would such a declaration have on the project?

ANSWER:

EPA does not have emergency powers under the Federal Water Pollution Control Act (Clean Water Act) relevant to this project. However, there are provisions in the Council on Environmental Quality's regulations implementing the National Environmental Policy Act (NEPA) and EPA's regulations implementing NEPA. In addition, the regulations of the U.S. Fish and Wildlife Service implementing the Endangered Species Act (ESA) provide for an

expedited and more informal consultation process where an emergency exists. This provision applies to natural disasters, casualties, and national defense or security emergencies.

At present, the project is on or ahead of schedule. EPA has completed its NEPA review for the International Treatment Plant (ITP) and recently issued a final EIS and Record of Decision. As a result, construction of the initial work on the ITP project has begun. Because the project is on schedule and because there are no currently pending legal obstacles, EPA has not had to consider the emergency options under NEPA or ESA. The recent lawsuit filed by the San Diego chapter of the Sierra Club could result in some delay if EPA decides it is necessary to reevaluate its Record of Decision and final EIS.

EPA will monitor the ITP construction process closely, and we will consult with you further if there is any indication of the potential for substantial delays due to the requirements of NEPA, the ESA, other Federal laws, or legal challenges.

Questions Submitted by Congressman Bill ZeliffQUESTION 1:

What is the current timetable for the completion of the wastewater treatment plant? Can the completion date for the outfall be expedited?

ANSWER:

Project plans now call for completion of the first phase of the International Plant by the end of calendar year 1995, a full three years ahead of schedule, completion of secondary treatment construction by early 1997, and completion of the ocean outfall by mid-1998. Unfortunately, because of the need for sensitive tunneling operations under the Tijuana Estuary to avoid disturbing the ecosystem, EPA does not anticipate an earlier completion of the outfall.

EPA will do everything it can to assure that the ITP remains on schedule and on budget, so that it is up and running as quickly as possible.

QUESTION 2:

What is the total projected cost for its completion? Once the plant is operational, who pays for operations and maintenance? What is the estimated annual cost of operations and maintenance?

ANSWER:

The total project cost is currently estimated at \$383 million, which is slightly greater than the 1991 cost estimate of \$378 million. However, imposition of the accelerated construction schedule has forced a reappraisal of project cost. New figures could be higher or lower, and we will not receive final construction bids until late in 1995.

The cost of operating and maintaining the ITP will be shared by the U.S. and Mexico in accordance with Minute 283. Mexico's share will be equal to the amount it would spend to operate and maintain a plant if one were built in Mexico. The exact amount will be negotiated through the International Boundary and Water Commission (IBWC). The most recent estimate of operation and maintenance costs for the ITP, based on the preliminary design concept report, is between \$11-12 million annually when the plant is operating at the secondary treatment level. The U.S. Section of the IBWC (USIBWC) has the responsibility to provide funds for the operation and maintenance of this facility. The IBWC may be able to provide a more recent estimate for the operation and maintenance costs for the ITP.

QUESTION 3:

Am I correct in the understanding that the Federal government's share of this project is capped at \$239.4 million?

ANSWER:

In response to a revised project cost estimate in late 1991 of \$378 million, the Appropriations Committees capped EPA's share at \$239.4 million (other Federal entities are not included under this cap).

QUESTION 4:

It is my understanding that Mexico's share of the project is \$16 million. This figure seems low relative to the total cost. Why is that?

ANSWER:

The current projected cost share for the government of Mexico is \$16 million. Under the provisions of Minute 283, Mexico is to contribute to the ITP project an amount of money equivalent to what it would spend to construct a treatment plant in Mexico. Mexico had, at one time, contemplated construction of a system on its side of the border to treat Tijuana wastewater beyond the capacity of its existing treatment facilities. Mexico calculated its cost for that system at approximately \$16 million at prevailing material and labor rates. However, with the plant being constructed on the U.S. side, Mexico took the position that it should be responsible for only the cost of its proposed solution to the Tijuana sewage problem, and agreed to \$16 million as its share of the treatment plant, although USIBWC is currently in the process of renegotiating this figure. Mexico is not required to contribute to the cost of the ocean outfall.

QUESTION 5:

At the present time, the financing for this project will come from the Federal government, the city of San Diego, the State of California, and Mexico. Has any consideration been given to making this plant privately owned and operated?

ANSWER:

There are two reasons why privatization is not a very viable option for the South Bay plant. First, is the need for immediate action. Because of the very significant human health and ecological impacts, solutions are needed as quickly as possible. At present, the existing international structure provides the most viable way to manage the necessary design and construction

needs. Second, because this project addresses international issues and is not limited to serving a particular municipality, there are no "rate-payers" in the usual sense, to create a steady income stream necessary to attract private investment.

QUESTION 6:

It is my understanding that Mexico is privatizing their water systems. Why shouldn't this bi-national plant be privatized?

ANSWER:

Mexico's method of privatization generally consists of Federally-financed construction, followed by a lease of the completed treatment facilities to a private company for a specific length of time. During that lease, the company operates the plant and collects the revenues as compensation. In the absence of a user-fee revenue stream, the ITP is considered a poor candidate for private ownership and operation.

QUESTION 7:

Would this be a cost effective alternative to consider?

ANSWER:

Without a revenue stream to attract a private entity to invest its capital in either the construction or operations of the ITP, it would appear that any role for a private entity would be limited to that of a contractor.

QUESTION 8:

Both the United States and Mexico have a vested interest in alleviating the pollution problem in the Tijuana River. Because this is a bi-national effort, to what degree has this contributed to the slow pace of the project?

ANSWER:

The inability to obtain detailed information from the Mexican government on sewage content and flow rates from Tijuana did cause some uncertainty and delays, resulting in a longer than usual design period. EPA cannot quantify the delay caused by this factor, however.

QUESTION 9:

What will the proposed treatment plant do with the treated water? Are there any plans for the reuse of treated water, such as for irrigation purposes?

ANSWER:

Recent studies show that there would be no demand for the treated effluent for irrigation or for other purposes. Therefore, the project Policy Committee decided the effluent would be best discharged into the ocean, at a point sufficiently far from shore to render its effects ecologically harmless.

QUESTION 10:

The region continues to suffer from water shortages. Shouldn't a water reuse plan be a component of this project?

ANSWER:

Effluent from the city of San Diego's municipal wastewater treatment plant is a preferable source for reclamation because it has a lower salt content than Tijuana's wastewater, and San Diego has plans to reclaim sufficient effluent to meet current and projected needs for reuse in the U.S. Although Mexico has not begun building facilities to return the ITP treated effluent for reuse in Mexico, it retains the right to do so under the terms of IBWC Minute 283.

QUESTION 11:

What will the plant do with the sludge -- or what we now refer to as "biosolids" -- that is generated from the treatment process?

ANSWER:

Under the terms of Minute 283, Mexico is responsible for ultimate use or disposal of the plant's "biosolids." The current design of the ITP calls for processing of the biosolids at the ITP. The stabilized biosolids will be loaded in trucks and returned to Mexico for beneficial use or disposal.

QUESTION 12:

Will the proposed treatment plant treat all of Tijuana's wastewater?

ANSWER:

The ITP as presently planned will treat essentially all of the remaining wastewater that is currently beyond the capacity of Tijuana's existing treatment plant. Further, the capacity of the ITP site and plant headworks will permit expansion of treatment capacity if needed. Mexico will continue to operate its existing treatment plant.

QUESTION 13:

Will this project eliminate discharges into the Tijuana River?

ANSWER:

As part of this project, Mexico is committed to improving its sewage collection and conveyance system in order to eliminate discharges into the Tijuana River, and it has made much progress in this direction. The Policy Committee, including EPA, believes that the completed project will eliminate dry weather discharges of sewage into the river. However, some sewage may elude collection during intense rain events or floods.

QUESTION 14:

Is there any estimate as to how much of the discharge into the Tijuana River is toxic substances?

ANSWER:

The consultants designing the ITP have taken samples of Tijuana sewage to determine the amount of toxic substances present. Samples have been collected from the Tijuana River as well as from the Tijuana sewer system. The results show that the concentration of toxic pollutants in Tijuana sewage is highly variable, which merely affirms that industries are discharging wastewater to the river and sewer system. Unfortunately, Mexico has provided very little information on the specific sources of industrial wastewater. However, the considerable progress that Mexico has made in improving its sewer system has resulted in a substantial reduction in discharges to the river.

QUESTION 15:

Will the proposed treatment plant deal sufficiently with toxics?

ANSWER:

At a secondary treatment level of operation, the plant will deal well with organic contaminants and some inorganic contaminants, but an adequate pretreatment program will be essential. EPA is now planning training for Tijuana officials in the establishment and operation of an effective industrial pretreatment program to screen "toxic" pollutants before they reach the plant. The Mexican government committed to ensuring adequate pretreatment in IBWC Minute 283.

Questions Submitted by Congresswoman Lynn SchenkQUESTION 1:

What standard of treatment will the EPA require of the International Treatment Plant in its final configuration? The authorizing legislation suggests that the EPA can administratively allow the facility to be built to an advanced primary treatment level. Will the EPA insist on a higher level of treatment and will that delay construction and/or increase cost?

ANSWER:

Project plans call for design of a secondary treatment module when the advanced primary module design is completed. EPA is committed both to a high level of environmental protection and to following the relevant requirements of law. As you know, the Clean Water Act and Minute 283 require secondary-level effluent treatment. Since the project plan has been based on secondary-level treatment from its inception, there will be no increased cost or additional delay beyond the scope of project plans as a result of completion of the secondary treatment module of the plant.

QUESTION 2:

It has been proposed that the International Treatment Plant treat its effluent to a level appropriate for discharge into the Tijuana River. Is that feasible and achievable? What would the effect be on the estuary ecosystem?

ANSWER:

Project plans call for discharging ITP effluent through an ocean outfall. Effluent treated to the "secondary" level would meet Clean Water Act requirements for this type of discharge, but additional treatment would be necessary to meet standards for discharge to the Tijuana River. Even with such additional treatment EPA does not believe that river discharge of the ITP effluent would be a satisfactory means of disposal. The Tijuana River naturally has low or no flow during the extended dry season. Further, the estuary that has developed at the mouth of the river would be adversely affected if it were to receive large amounts of fresh water continuously. Because of these adverse effects on the estuary, discharge to the river is not an acceptable alternative to construction of the ocean outfall, even if the level of treatment at the ITP were upgraded, which would entail considerable cost and delay.

Questions Submitted by Congressman Sam CoppersmithQUESTION 1:

On February 17, 1994, the populations of Nogales, Arizona, and Nogales, Sonora, Mexico, were forced to evacuate due to inadequate wastewater treatment facilities. Before this incident, and after, these communities have suffered from the EPA and IBWC's lack of communication with border communities. What action is the IBWC taking to improve communication with border communities?

ANSWER:

EPA, in cooperation with the partners in the Border efforts, is committed to improving communications with border communities and other interested parties. As part of that effort, EPA announced plans to establish two new border offices to further improve communication with the communities along the Border. EPA expects that these offices will help the Agency learn about environmental problems from the communities that are affected.

In addition, the recent creation of the Border Environment Cooperation Commission and the North American Development Bank entails a shift from a federally driven decision-making process for building Border environmental infrastructure, to one which is locally driven. Both new organizations will have public advisory councils, and both will be highly attuned to community and public involvement.

QUESTION 2:

Why is the community of Nogales not allowed to participate in EPA working groups concerning U.S./Mexico border water quality?

ANSWER:

The community of Nogales has participated in work group and related activities established under the provisions of the 1983 La Paz Agreement. A variety of meetings and activities is held under the auspices of the Agreement, ranging from meetings limited to the National Coordinator for the U.S. and the National Coordinator for Mexico, to meetings open to Federal, State, and local officials, including representatives of Nogales. Meetings regarding projects specific to U.S./Mexico border water quality in the Nogales area are held locally, and representatives of Nogales have been and will continue to be invited to participate. In addition, a citizen of the Nogales area, Mr. Dick Kamp, served as a member of the Public Advisory Committee established by EPA to provide citizen guidance on issues related to the Integrated Border Environmental Plan.

Further opportunities for local involvement, planning, and solutions to community pollution problems, particularly relating to border infrastructure project development and finance mechanisms, are being established pursuant to the North American Free Trade Agreement (NAFTA). Nogales will be full participants in these new mechanisms.

QUESTION 3:

What is EPA doing to encourage agreements between U.S. and Mexican cities concerning sewage treatment plants?

ANSWER:

EPA is supporting and helping to develop the new border environmental infrastructure development and finance mechanisms established pursuant to passage of NAFTA. The "Border Environment Cooperation Commission" and the "North American Development Bank" will help U.S. and Mexican communities come to terms with their pollution control problems. The bi-national, cooperative nature of the boards of these two organizations will foster bi-national cooperation among States and communities.

QUESTION 4:

The University of Arizona Cancer Center uncovered cases of multiple myeloma, a rare bone cancer, at a rate almost four times higher than the national average. What research has EPA done on the relationship between cancer rates and exposure to hazardous waste such as the sewage in Nogales?

ANSWER:

EPA is aware of this finding, as well as elevated levels of leukemia in the area to which you refer. Mr. John Wise, Deputy Regional Administrator for EPA Region 9, serves on the bi-national Border Health Issues Task Force created by Governors Beltrones and Symington to address this issue. While no EPA research is now underway on possible connections between cancers and exposure to sewage, the establishment of such research will be under discussion as the Agency develops its research plans and coordinates with other agencies. In addition, EPA is funding three staff positions at the State of Arizona to work on the broad range of environmental problems along the border.

Mr. BORSKI. Let me once again thank the gentleman from California for the work that he's done on this and bringing it to our attention. It is very safe to say that he's doing an outstanding job representing the people of his district.

Thank you very much, and this subcommittee hearing is adjourned.

[Whereupon, at 2:05 p.m., the subcommittee adjourned, to reconvene at the call of the Chair.]

PREPARED STATEMENTS SUBMITTED BY WITNESSES

**Statement to the Committee On Public Works and Transportation
On the International Wastewater Treatment Plant, San Diego, California
by Mary Jane Forster, Member, California State Water Resources Board**

April 13, 1994

Good morning. My name is Mary Jane Forster. I am a member of the California State Water Resources Board. Thank you for the opportunity to provide testimony on behalf of the State of California to your Subcommittee's hearing on the design and construction of the International Wastewater Treatment Plant (IWTP) and outfall facilities in San Diego. Attached a brief report which reflects our understanding of the status of these facilities.

There are five members on our Board. Our Vice-Chair is a member of a "policy group" which has provided policy direction for the planning and design of the subject facilities. Other members of this policy group include Dr. Narendra N. Gunaji, Commissioner of the International Boundary and Water Commission (IBWC), Harry Seraydarian, Division Director of the Water Management Division at United States Environmental Protection Agency, Region 9, Dave Schlesinger, Director of the Metropolitan Wastewater Division for the City of San Diego, and James Mocalis, member of the San Diego Regional Water Quality Control Board. I served on the San Diego Regional Water Quality Control Board prior to my appointment to the State Board, so I have some background on the IWTP issues.

I recognize that the Subcommittee is concerned about the delays encountered in completing the IWTP and outfall facilities, and I can assure you that the State of California is most interested in the completion of facilities which will eliminate the flow of sewage in the Tijuana River and protect nearby ocean beaches from contamination. However, the planning and design of these facilities have been complicated due to environmental considerations and because of uncertain design parameters. The latter refers to information on the nature and projected quality and quantity of sewage flows from Tijuana, design parameters over which the IBWC had no control and little information.

I also should point out that it has been our experience in administering the wastewater treatment facilities construction grant program in California that large projects typically take five to seven years from the start of planning to completion. The additional complications of this project would suggest that the original four-year plan completion time-frame was overly optimistic. In my experience, resolution of the trans-border pollution problems was making little progress until Commissioner Gunaji took office. Since then, there has been significant progress.

I am confident that the IWTP and outfall facilities can be completed by 1998. I also believe that, in the interim, excess sewage flows from Tijuana can be reliably conveyed to Tijuana's coastal treatment plant prior to 1998 so long as Tijuana improves the performance and operation of its pumping plant.

STATUS OF BORDER WATER QUALITY PROBLEMS
by the California State Water Resources Control Board
April 13, 1994

TIJUANA RIVER

In 1993, Tijuana continued to discharge sewage into the Tijuana River. South San Diego County beaches were posted during the tourist season. In November 1993, Governor Wilson declared a State of Emergency to draw attention to the problem.

Sewage discharges come from two sources, discharges from Tijuana's main sewage pumping plant and uncontrolled discharges from unsewered or poorly sewerred areas of Tijuana and possibly discharges from Tecate. These are discussed separately followed by a discussion of the International Treatment Plant (ITP) and Ocean Outfall.

Tijuana's Sewage Pumping Plant and Treatment Plant

The pumping plant is no more than a hundred feet from the border and is the low point in Tijuana's sewage collection system. Sewage is pumped to an open canal which then flows by gravity to Tijuana's treatment plant (an inadequate pond system), approximately 5 miles south of the border. The pumping plant has been the source of large, occasional discharges.

When sewage flows into the pumping plant are greater than its pumping capacity (see discussion below), sewage is diverted to the City of San Diego wastewater system through an emergency connection or to Stewart's Drain which in turn discharges to the Tijuana River. Large discharges to Stewart's Drain, when the emergency connection was full, occurred during the summer of 1993 causing a local outcry from citizens and local officials in San Diego County.

In response, the IBWC Commissioner met, in October 1993, with local officials and proposed an interim treatment solution. He also requested that local agencies and the State declare a State of Emergency to support the IBWC's expenditure of funds. Local agencies complied with the Commissioner's request and in turn asked Governor Wilson to do likewise, which he did.

On December 17, 1993 SWRCB staff participated with the IBWC and USEPA in a field investigation of the pumping plant and conveyance canal capacity. Upon early morning arrival at the pumping plant, it appeared that the pumping plant had been shut down for the night allowing all flows to enter the San Diego emergency connection. Measurements taken during the day indicated that, even with worn pumps, the plant pumping capacity combined with the capacity in the emergency connection exceeded Tijuana's existing peak sewage flows.

IBWC immediately complained to their Mexican counterparts and began closing the valve to the emergency connection during all but the peak flow period of 2pm - 8pm. Since that time flows to the San Diego emergency connection were reduced from 10 -12 million gallons per day (MGD) to an average of 2 MGD. Note that for several years, Tijuana's pumping plant, conveyance canal and treatment plant (discussed below), were thought to be beyond their design

capacity. Thus, the City of San Diego was asked to accept "excess" flows in an existing emergency connection. For most of 1992 10-12 MGD was discharged to the emergency connection.

A further and important finding of the December 17 field trip was that the pumps in the pumping plant are worn to the point that they will pump less than two thirds of their design capacity. Replacement of the pumps would cost approximately \$250,000. By contrast, the City of San Diego estimates its annual cost to treat "excess" Tijuana flows at between two and three million dollars.

It appears that replacing pumps would allow Mexico to reliably transport peak sewage flows for several years to come and would require minimum use of the San Diego emergency connection and no bypasses to Stewart's Drain. The IBWC has agreed to reevaluate the pumping plant capacity and Tijuana sewage flow projections.

There may be reluctance to improve the performance of the Tijuana pumping plant because the treatment plant is already over capacity. However, we (and IBWC and USEPA privately) do not believe that Tijuana's treatment plant provides any significant treatment before discharging effluent to the surf. We would like the treatment performance to slightly better than an aerated grit chamber, a process which removes "grit" material before primary treatment. An increase in flow to the plant would not significantly degrade such performance.

It is important that the performance and capacity of Tijuana's treatment plant and pumping plant be improved since mathematical modeling by an IBWC consultant showed that northerly ocean currents are carrying bacteria from the plant's surf discharge to San Diego beaches. Therefore, beach postings could occur in the future even with a \$350 million international treatment plant and ocean outfall.

Uncontrolled Discharges

As water supplies were delivered to unsewered areas of Tijuana, sewage flowed freely in drainages to the Tijuana River. By 1990 these flows were as large as 8 million gallons per day and were the entire dry weather flow in the Tijuana River. In 1991 a diversion structure was constructed in the river channel by Mexico to pump up to 13 MGD of dry weather sewage flow to Tijuana's sewage pumping plant. In 1992 all dry weather sewage flows were diverted and the public health postings were removed from the beaches.

By 1993 Mexico said it had reduced its uncontrolled discharges to perhaps 3 MGD. However, the heavy rains in 1993 produced substantial natural flows in the Tijuana River throughout the year, rendering the diversion structure useless because flows exceeded its capacity. Thus, natural flows were contaminated with uncontrolled discharges.

Update of Border Water Quality Problems

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The scenario that concerns us is a wet year like 1993 with a 350 million dollar treatment plant and ocean outfall in operation and continued beach closures due to uncontrolled discharges. Mexico must tighten and maintain their sewage collection system or the Tijuana River and San Diego beaches will continue to be contaminated.

International Treatment Plant and Ocean Outfall

The design of the 25 MGD secondary treatment "ITP" has been accelerated so that a "first phase" 25 MGD advanced primary treatment plant could be operational by the end of 1995. The ocean outfall will not be constructed and operational until 1998. If the treatment plant is operated before 1998, it is unclear where the discharge will be.

There is a \$239 million federal budget cap on the ITP and outfall. By USEPA's latest estimates, there will barely be enough funds to build the advanced primary treatment phase and ocean outfall. There is not enough money to build the secondary portion of the ITP. We believe this could result in an environmental problem.

We have argued that advanced primary treatment is acceptable for an ocean discharge (like that for San Diego) so long as a rigorous industrial source control and pretreatment program is implemented and enforced to control toxic discharges. Tijuana is an industrial center and does not have such a program. For design purposes, we believe it is prudent (and realistic) to assume they will never have one. If this is true, we believe secondary treatment, which will remove additional suspended solids and hopefully biodegrade organic toxic materials, will be necessary to protect the ocean environment.

One more cost that should be mentioned is the estimated \$10-\$12 million annual operating cost of the ITP. We believe Mexico will propose its share to be between \$1-\$2 million.

Current Status

In view of the federal budget constraints, to assure provision of secondary treatment, and to significantly reduce the costs to U.S. taxpayers, we have suggested that the USEPA and the IBWC consider designing and constructing a biological pond system. Such pond systems were developed by Professor Emeritus William Oswald of U.C. Berkeley and have been successfully operated for many years at Hollister and St. Helena.

Despite the accelerated design schedule for the ITP, the USEPA and IBWC have agreed to quickly further explore pond systems. The compelling reason for this consideration is that the subject pond system can be constructed and operated at one third the cost of the proposed ITP (a saving of \$100 million and \$8 million in capital and annual costs respectively). A further advantage is that, because of the large mass of organisms in a pond system, it will have a much better response to toxic shock loads and arguably better treatment of industrial wastes than a

conventional secondary treatment plant. There are possible disadvantages of a pond system, including use of available land for a plant of less capacity than is proposed for the conventional plant, public acceptance concerns, odor and vector breeding potential, delay in initial operation, etc. An impartial review panel which will be convened to look at the pond proposal will address these issues.

An Oswald pond system could be constructed and operational by the end of 1996, or a year later than the proposed ITP. Since an ocean outfall will not be operational until 1998, and since a carefully monitored Tijuana pumping plant should not overflow, it may make sense to modify the planned treatment system, even at this late date for the reasons mentioned.

TECATE

Tecate, an inland community in Mexico located east of Tijuana, discharges sewage and industrial wastes to Tecate Creek which flows into the Tijuana River. Until last year, water quality problems at Tecate were not being completely addressed. Untreated domestic and brewery waste flowed in Tecate Creek. Tecate's only treatment plant was in an abandoned and inoperable state.

Recently, the IBWC Commissioner announced that Mexico is rehabilitating the Tecate treatment plant. Additionally, the Tecate brewery is building a treatment plant. Both plants are expected to be operational by the end of 1994. However, the level of treatment to be provided and the discharge standards to be met are unknown.

If flows from Tecate increase, the Tijuana River may become a perennial stream. Unless Tijuana has a tight sewage collection system a perennial stream will carry contaminated Tijuana River flows across the border.

DEPARTMENT OF THE ARMY
UNITED STATES ARMY CORPS OF ENGINEERS

COMPLETE STATEMENT OF
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INTERNATIONAL WASTEWATER TREATMENT PLANT
AND OUTFALL FACILITIES
SAN DIEGO, CALIFORNIA

BEFORE THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
UNITED STATES HOUSE OF REPRESENTATIVES

APRIL 13, 1994

INTRODUCTION

Mr. Chairman, I am Major General Stanley G. Genega, the Director of Civil Works for the United States Army Corps of Engineers. I am pleased to be here today to discuss the Department of the Army's role in the International Wastewater Treatment Plant and outfall facilities project in San Diego, California. After presenting background information and summarizing the role of the Corps of Engineers in this project, I will focus on the following topics identified in your letter to Secretary of the Army Togo West as being of interest to the subcommittee: management and technical issues associated with the delays in the project since 1990, how to avoid further delays, and how to ensure that sufficient personnel and financial resources are available to complete the project by 1998. I will not be able to respond to your question about the most effective way to collect and dispose of excess sewage flows into the Tijuana River during the interim period. The Corps role in this project has been to furnish reimbursable services to the Environmental Protection Agency (EPA) and we have not analyzed this matter.

BACKGROUND INFORMATION

The United States and Mexico signed an agreement in 1983 on Cooperation for the Protection and Improvement of the Environment in the Border Area (the Agreement). As designated in the Agreement, the U.S. Environmental Protection Agency is the U.S. National Coordinator responsible for implementation of the Agreement. EPA's counterpart for the Mexican Government is the Secretariat of Social Development. Pursuant to the Agreement, EPA formed a coalition with the City of San Diego, the State of California, and the International Boundary and Water Commission (IBWC) to develop a series of measures which would provide additional reliability for the protection of public health and water quality in San Diego County. The coalition, under EPA's lead, subsequently became known as the Tijuana Policy Committee and, later, the Border Policy Committee. It should be noted that the Corps of Engineers is not a member of this committee.

In 1985 the City of San Diego developed five alternative plans to improve the border area environment. EPA adopted the alternative that provided for a 66-inch standby interceptor pipe and pumping station in the U.S. to take sewage overflows from a pumping station in Tijuana, Mexico, transport them along an alignment on the U.S. side of the border, and re-deposit them to the Tijuana sewage conveyance system. The system became known as "return to sender". In 1989 the "return to sender" was dropped by the Border Policy Committee in favor of analyzing an IBWC proposal to build an international secondary treatment plant and ocean disposal facility. This new system became known as the "big pipe" system.

CORPS OF ENGINEERS ROLE

The Economy and Government Act (31 U.S.C. 1535) authorizes the Corps to provide reimbursable services to other Federal agencies, and it is under this authority that the Corps has conducted work on this project. The initial agreement between EPA and the Corps was for \$5,000,000 and covered a 2-year period. Several amendments to the original interagency agreement covered extensions to the performance period for additional work items.

The Los Angeles District Corps of Engineers contacted with Boyle Engineering to prepare the conceptual design of the "return to sender" project. Conceptual design was performed between September 1986 and September 1987. After completion of the conceptual design, Boyle Engineering then began work on the preliminary and final design, but work was suspended October 1988 to January 1989 when, based on an IBWC proposal, the Border Policy Committee changed the project to an international secondary treatment plant plus an ocean outfall dropping the "return to

sender" system. Design of the "big pipe", which will convey the sewage flows from the international secondary treatment plant, resumed January 1989 and was completed September 1989. From October 1989 to November 1990, Boyle then prepared a conceptual design of the treatment plant. Construction of the "big pipe", and further design of the treatment plant was then undertaken by the IBWC.

The Corps was concurrently tasked in April 1989 with assuring project compliance with the National Environmental Policy Act (NEPA) and the Endangered Species Act and acquiring permits. The Corps has been providing environmental oversight, guidance and assistance to Regional Environmental Consultants, an environmental consulting firm under contract with the City of San Diego, in the preparation of an environmental impact statement (EIS).

In 1991 the Corps was tasked with real estate appraisal and acquisition. In addition to the 1990 and 1991 amendments for the environmental and real estate work assignments, a 1989 amendment provided for assistance by the Corps in obtaining property easements for a land outfall. Other ongoing work items, such as the site preparation plan and designs for the ocean outfall, and remaining work items, which include design and construction of the international treatment plant and construction of the ocean outfall, do not currently involve the Corps.

DELAYS IN THE PROJECT SINCE 1990

Corps activities have been as a support agency to EPA. I will list some of the key project events which have been scheduled to occur after 1990 and then address our performance on those actions which were assigned to the Corps.

Key events include completion of the international treatment plant facilities study, acquisition of right-of-way for the "big pipe" construction, construction of the "big pipe", completion of the EIS for the international treatment plant, acquisition of real estate for the international treatment plant and land outfall extension, completion of a Coastal Consistency Determination pursuant to the Coastal Zone Management Act of 1972 and issuance of a permit under Section 404 of the Clean Water Act. Relative to these, the Corps has been responsible for four items: EIS oversight, real estate appraisals and acquisition, the Coastal Consistency Determination, and the Section 404 permit.

The Corps accepted its EIS oversight role in April 1989. The initial schedule anticipated completion of this task by July 1992. This schedule was subsequently extended to May 1994 for two main reasons. First, significant comments were received during the public review period following the May 1991 issuance of the draft

EIS. For example, the U.S. Fish and Wildlife Service commented on the need to minimize the potential impacts to endangered species and focused its comments on construction methods, noise impacts and mitigation requirements.

The second reason for changing the EIS schedule is related to certain complex issues the Border Policy Committee addressed after issuance of the draft EIS. These issues included whether the international treatment plant would be designed to accommodate flows from the City of San Diego, concurrence regarding the dilution ratio (whether it would be 80:1 or 100:1), who would oversee construction, whether the treatment level would be advanced-primary or full-secondary, whether estimates of the flow coming from Mexico were accurate and whether the outfall would utilize conventional construction or tunneling. The most significant change arising from the Border Policy Committee's discussions was the decision in September 1992 that flows from the City of San Diego would not be accommodated in the project. To make the EIS consistent with the project changes, additional data were acquired, and this new information was incorporated into the current version of the EIS.

The final EIS was distributed on February 18, 1994, initially for a 30-day review and comment period. The comment period was extended to April 1st in response to requests received during the initial comment period. It is anticipated that a record of decision (ROD), completing the NEPA process, will be signed on or about May 6th.

Regarding real estate appraisals and acquisitions, the Corps accepted in September 1991 a general assignment from EPA to provide those services. Pursuant to that general assignment, we have performed appraisals at a number of parcels and all were completed on time. To date, there have been no specific acquisition assignments.

We received the assignments for the Coastal Consistency Determination and the Section 404 permit in 1990, as parts of the environmental oversight assignment. The Coastal Consistency Determination, issued by the California Coastal Commission, was originally scheduled to be obtained in March 1992; however, due to the project changes mentioned above, it was obtained in February 1994. Issuance of the Section 404 permit, originally scheduled for July 1992, is awaiting completion of the NEPA process which, as stated earlier, is anticipated to occur on May 6th. The permit could be issued as soon as one week after the record of decision is signed.

An additional work item, an assessment of the potential for hazardous waste sites in the project area, was performed by the Corps as support to EPA. While there was no specific tasking or schedule for this item, we did successfully complete

preliminary assessments and site inspections and obtain samples for testing within the project timetable.

AVOIDING FURTHER DELAYS IN THE PROJECT BY 1998

The Corps of Engineers has done everything it can to avoid delays in the International Wastewater Treatment Plant and outfall facilities project. There are two areas I would like to specifically highlight.

First, the final EIS, for which we provided oversight, addresses all of the known environmental concerns, including the endangered species concerns expressed by the Fish and Wildlife Service. More recently, however, the Service informed us of the possible presence of the Pacific pocket mouse at the project site. This species was emergency listed as an endangered species on February 3, 1994, and the project area is within its historic range. The Service is currently conducting surveys to determine the presence or absence of the Pacific pocket mouse on the project site. If its surveys indicate that the current range of the Pacific pocket mouse extends onto the project site, consultation under the Endangered Species Act will continue, possibly delaying the signing of the ROD and issuance of the Section 404 permit. We are coordinating closely with the Service to avoid or minimize project delays.

Second, it should be noted that the support provided by the Corps in the area of hazardous waste identification was instrumental in avoiding a potentially costly and prolonged cleanup effort. A property containing hazardous wastes was identified by the Corps and, at the Corps's recommendation, the Border Policy Committee acquired an alternative property.

CONCLUSION

The Corps stands ready to furnish any further reimbursable services that may be required. Mr. Chairman, that concludes my statement. I would be happy to answer any questions.

STATEMENT OF NARENDRA N. GUNAJI
UNITED STATES COMMISSIONER
INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
BEFORE THE
SUBCOMMITTEE ON INVESTIGATION AND OVERSIGHT
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U. S. HOUSE OF REPRESENTATIVES

April 13, 1994

Mr. Chairman, Members of the Committee. I am pleased at the opportunity to appear before this Committee to discuss a matter of importance to us all -- how to improve the management of the Tijuana wastewater project and how to speed up its construction. Among my responsibilities as United States Commissioner of the International Boundary and Water Commission, United States and Mexico (IBWC), are to carry out the obligations of the United States in the 1944 Water Treaty with Mexico. Section 510 of the Water Quality Act of 1987 authorizes grants from the Environmental Protection Agency (EPA) to the U. S. Section of the IBWC (USIBWC) to construct defensive treatment works and wastewater treatment works in the City of San Diego to protect its citizens from inadequacies in the treatment of wastewater in Tijuana, Mexico. The pollution of beaches, the Tijuana River, and surrounding areas in the extreme southwestern area of San Diego from untreated sewage has been a long-standing problem. The agreement of the United States and Mexico to address this problem in a joint and participatory manner through the adoption of IBWC Minute 283 on July 2, 1990 provides the critical international cornerstone for proceeding to a solution.

Since the adoption of Minute 283 the USIBWC has proceeded to carry out its mandate to construct defensive works and an international treatment plant in the Tijuana River valley of San Diego to receive and treat sewage from Tijuana.

THE PROJECT

The project includes the following major elements:

- a. The International Wastewater Treatment Plant;
- b. The South Bay Land Outfall;
- c. Collection and pumping facilities for capturing wastewater flows from canyons and from the existing Tijuana River diversion;
- d. The South Bay Ocean Outfall; and
- e. A USIBWC field office.

The Subcommittee has expressed concerns about the management and technical issues associated with the progress of the project since 1990. Attached as Exhibit "1" is a Chronology of Events Regarding the Design and Construction of the South Bay International Wastewater Treatment and Conveyance Facilities, dated February 2, 1994.

The South Bay project includes several different features. Construction of the first component of the project, known as the South Bay Land Outfall, has already been completed under USIBWC management without significant delays or cost overruns. Criticism of the project has focused instead on the design contracts for the South Bay International Wastewater Treatment Plant and the remaining portions of the outfall structure, what has been called the South Bay Land Outfall Extension, and the South Bay Ocean Outfall.

The procurement of design services for the San Diego projects has been a very challenging task. First, this is due to the very nature of the project, which is highly challenging from a technical perspective. The interception of uncontrolled sewage flows through natural terrain features, from sources in a foreign country, is an enormously difficult undertaking. The treatment of that sewage also poses problems which are not common to other sewage treatment projects in the United States. Only very limited actual data is available regarding flows and characterization of the sewage, which will differ greatly from what is typically encountered in the United States. For example, the USIBWC knows from past experience that the sewage will be more concentrated than is typical in the United States, due to lower per capita water usage in Mexico. Flows tend to be erratic, compared with communities in the United States, because they are directly affected by water availability. That makes it almost impossible to predict flow patterns. In addition, some sanitary sewers are utilized to drain storm runoff. This leads to very high peak sewage flows during storms, as well as high levels of silt and grit.

The location of the project facilities, which is dictated by the nature of the problem itself, is also challenging. It is in the San Diego area of the Tijuana River Valley, a broad floodplain, ending in a sensitive salt water estuary. Some threatened or endangered species live in the area, making it necessary to plan the project in ways which do not unduly disturb them. In some areas, work must stop during certain times of the year because of the possible effects on the wildlife; construction plans must take this into account. The result is difficult, often unpredictable, challenges which face such a project.

In addition, this is a federal project, funded primarily through federal appropriations; the United States is a direct party to the subject contracts. These contracts are, therefore, subject to rigorous federal laws and regulations which guide the procurement of services by the Federal Government, in addition to federal fiscal laws which apply to the management of federally appropriated funds. The need to scrupulously adhere to Federal procurement requirements has been made more complex by the need to coordinate contract actions with four primary project participants (the USIBWC, EPA, the California State Water Resources Control Board, and the City of San Diego), as well as numerous other Federal and state regulatory agencies and the affected public.

USIBWC staff engineers and contract specialists have attempted to make the contracts as flexible as possible, within the limits of applicable laws and regulations, in order to accommodate subsequent input from the other parties involved. Accordingly, these contracts have been able to absorb several major modifications, driven by significant changes in circumstances. With such flexibility, it has been possible to avoid reprocurement, which would have resulted in further costs and delays.

The major changes in circumstances which have adversely impacted project progress for the most part date back to July 1992. Prior to that time, procurement for this project proceeded at a very reasonable pace for a project of this size and complexity. The USIBWC staff was able to develop scopes of work for both the international treatment plant and outfall design contracts by January 1991 (less than six months after the signing of Minute 283). Both design contracts were synopsized (advertised) on January 7, 1991. In the case of the international treatment plant design contract, a design firm was selected and contract negotiations were accomplished within the period from May 1991 to March 1992. The Notice To Proceed was issued on April 7, 1992, only 15 months after the synopsis. In the case of the design contract for the outfall, a design firm was selected and contract negotiations were concluded within a period from May to December 1991. A Notice To Proceed was issued on December 26, 1991, only 12 months after the synopsis.

That was accomplished after extensive coordination with and review by the project participants. Due to differing priorities and agendas of the participants, positions and policies periodically changed, and more time was needed for review and approval than was originally contemplated. Such changes were accommodated in as expedient a manner as possible, and without intolerable delays in the overall project.

In May 1992, representatives of the City of San Diego unofficially announced that the City would not participate in the project to the extent which had previously been agreed. As originally conceived, the project consisted of both an international wastewater treatment plant and a municipal wastewater treatment plant collocated on the chosen project site, both treating sewage to secondary standards. The international plant would have been on the east side of the plant site, with the municipal plant on the west side. The joint plants would have shared infrastructure, roads, power, water, telephone lines, chemical storage facilities, shops, administrative buildings, and the outfall pipeline. The City originally asked for, and obligated itself to pay for 146 million gallons per day (mgd) of peak capacity in the outfall pipeline, which was to be designed based on that commitment. The 12,000-foot Ocean Outfall was designed and constructed based on that anticipated capacity for San Diego and 200 mgd peak capacity for Mexico.

Between May and July of 1992, major decisions about the project were put on hold while the City decided how to proceed. On July 27, 1992, the City Council voted not to build its portion of the treatment plant, and to reduce its capacity in the pipeline to 58 mgd peak capacity. That resulted in a major restructuring of the project and significant revisions to the scopes of work in the design contracts.

In addition to the City's withdrawal from the project, the restructuring and revision reflected another significant event in July 1992. On July 10, 1992, Region 9 of the EPA announced that the House Committee on Public Works and Transportation had imposed a 239.4 million dollar spending cap on the project. Region 9 was concerned that the project could not be built for that amount. They insisted that the project design contracts be revised so that the designs would ensure that the project would come within that limitation. In response to Region 9's concerns, the project design was restructured in a modular fashion, whereby features could be deleted if sufficient funding were not available.

The process of coordinating the radical restructuring of the project, in response to the City's withdrawal and Congressional funding limits, took several months, as all of the participants worked through the implications. The parties approved modified scopes of work, which were issued in 1993.

The modification to the international treatment plant design contract was issued on February 25, 1993. The design contractor had already completed its preliminary conceptual design report in June of 1992. The contract modification

required the design contractor to redo the preliminary design work, eliminating provisions for the City's collocated plant, and adjusting capacities. This rework was extensive, since all of the plant's support features were previously sized to serve two plants. In addition, the deletion of the municipal plant meant that there was no longer any justification to confine the international plant to the smaller site on the east side which was less desirable than the west side because it required more site preparation. This modification also called for restructuring the design into modules. The basic module would consist of a minimum facility. Such a facility would suffer from necessary compromises in operational efficiency, reliability, and maintenance costs. Features which are highly recommended, but not strictly necessary for minimum functioning, were designed as additional modules, which can be built if funding permits. This is a much more complicated design task than was originally envisioned.

Because of budget limitations and possible further delays in completing the international project, USIBWC in June 1993 proposed to EPA and the Policy Committee what it considered to be a reasonable and practical way to complete the project to meet the needs of the United States and Mexico. Based on a National Research Council-sponsored report, the USIBWC proposed a high dosage chemical assisted advanced primary process for treatment of Tijuana sewage. In making this proposal, the USIBWC did not abandon the idea of a secondary treatment process. The plant is being designed to permit construction in a modular design for both primary and secondary systems.

The modular concept was carried further by another major revision issued on December 2, 1993, in response to EPA Region 9's concerns that a complete facility could not be built within the funding limits imposed on the project, as well as a desire by all parties to accelerate physical construction. That revision called for separation of the plant's primary and secondary treatment features. The advanced primary portion of the plant will be constructed first as a stand-alone facility, with the secondary treatment features to follow. This modification also called for moving the plant back to the east side of the original site, which belongs to the United States, thereby avoiding the time required to acquire the west property from private owners and allowing for acceleration of the physical construction.

The major modification to the outfall design contract was issued on April 23, 1993. It required the design contractor to adjust capacities, perform additional studies, and provide a conceptual design for installation of the outfall by tunneling. Conventional methods of installation had previously

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been considered more appropriate, but interest in tunneling was heightened by the concerns about funding limitations. If feasible, tunneling could prove to be significantly less expensive than conventional methods and less disturbing to sensitive wildlife in the area.

It should be noted that the various changes were made possible by the flexibility of the contracts, including extensive use of option clauses. To date, these contracts have absorbed every change which project participants have requested.

ENVIRONMENTAL CONCERNS

The environmental review of the project is not yet complete. The environmental responsibilities were assumed by the EPA pursuant to Memoranda of Agreement, which set out the roles of the USIBWC, EPA, City of San Diego and California State Water Resources Control Board. The Notice of Intent to prepare an Environmental Impact Statement (EIS) was published in August of 1990. The Final EIS was released in February of this year. A record of decision on the Final EIS is scheduled for May 6, 1994.

As a part of its environmental responsibilities, the EPA is also consulting with the U. S. Fish and Wildlife Service (USFWS) to carry out Endangered Species Act Section 7 consultations with regard to avoidance of impacts upon, or mitigation for impacts upon, endangered species in the Tijuana River Valley. After submitting several working drafts to the USFWS, a final biological assessment was submitted to USFWS and on December 9, 1993 the two agencies entered into formal consultations. Work on the project cannot commence until the EIS Record of Decision is issued and Section 7 consultations are successfully completed with a determination by the USFWS that the activities relating to the international treatment plant, the ocean outfall, and associated facilities will not place endangered species in jeopardy.

AVOIDANCE OF FUTURE DELAYS

Assuming that outstanding environmental issues are resolved between EPA, USFWS and other governmental and non-governmental entities, the key to the timely and efficient construction of this project lies in the ability of all of the participants to cooperate in the furtherance of an international project. There appear to be three constraints to meeting the existing construction schedule:

1. Domestic participation in the South Bay Ocean Outfall. It is important that the City of San Diego make a final decision

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on the extent of its participation in the ocean outfall. At the present time the design contractor is providing a design for 258 mgd peak capacity in the ocean outfall. San Diego is presently considering requesting the capacity be increased to 346 mgd peak capacity to accommodate its future needs. To avoid further delays and to minimize redesign costs, a San Diego decision on this issue is needed as quickly as possible.

2. Use of new technology to treat sewage. There have been proposals to consider new technologies other than those upon which the project is currently based. At this late date, a lengthy examination of such proposals would further delay the progress of the project. Without discussing here the merits or weaknesses of these proposals, the USIBWC has observed that these methodologies have not been tested on large treatment plants such as this one, and those approaches were not envisaged by the IBWC when Minute No. 283 was signed.

3. Technical oversight by State and Region 9 EPA. Technical management of the design of the international treatment plant and the ocean outfall has been complicated for the USIBWC by administration of funding for the project as if it were a construction grant under the Clean Water Act, rather than a joint international project. I recognize the need for EPA to closely monitor progress of such projects when constructed infrequently by communities in the United States. The U.S. Section of the IBWC has long experience in constructing complex international sewage projects and in compliance with federal procurement laws and regulations.

The design contractor should be permitted to implement the design contract requirements without impediments, once those requirements are approved by the EPA and the State Water Resources Control Board. As envisioned in interagency agreements, the USIBWC should be allowed to make technical decisions concerning the design of the project. If this happens, this project will be as successfully administered as international construction projects that have been and are being successfully administered by the IBWC in Nogales, Arizona and in Nuevo Laredo, Mexico.

ENSURE SUFFICIENT PERSONNEL AND FINANCIAL RESOURCES

The Subcommittee has asked for our views on ensuring that sufficient personnel and financial resources are available to complete the international treatment plant and outfall by 1998.

The USIBWC has made major organizational changes in the last four months to ensure the Tijuana Project is completed in the shortest possible time. Under those changes, engineers and contract specialists form a special team assigned exclusively

to the administration of this project. All contract decisions have been put under the authority of the person who managed the successful completion of the land outfall and the recent expansion of the Nogales International Wastewater Treatment Plant. A project manager and two engineers have been reassigned from the El Paso USIBWC headquarters to San Diego to manage the project and supplement the existing staff at the San Diego office.

Regarding financial resources, the USIBWC proposed the concept of modular design for the international treatment plant to permit construction of the most critical portions of the plant with available funds when the construction bids are reviewed. The priority is to complete the advanced primary facilities. The construction contract for the advanced primary treatment module will be bid in late 1994. The contracts for the construction of the secondary facilities of the treatment plant and the ocean outfall will be bid at the same time. At that time it will be known if there are sufficient funds available to complete all or part of the secondary treatment facilities.

U.S./MEXICO PLANS TO COLLECT AND DISPOSE OF SEWAGE FLOWS DURING THE INTERIM

The Subcommittee has asked for information regarding the current plans for collection and disposal of sewage flows during the interim period before the international treatment plant and the ocean outfall are completed. The IBWC has planned the following measures to control excess sewage flows that currently discharge into the Tijuana River.

1. New pumps are being considered to replace existing, older pumps at Pumping Plant No. 1 in Tijuana. This will improve the capacity of Tijuana's Pumping Plant No. 1 by installing pumps that will operate at a higher efficiency and will be better able to handle peak flows arriving at the plant.

2. Mexico has agreed in concept to accept in their conveyance canal from Pumping Plant No. 1 to the treatment plant at San Antonio de los Buenos peak flows that have been intercepted and stored in the United States for return to Mexico during off-peak hours. The USIBWC is presently reviewing the options available to accomplish this task. A conceptual study will be presented to the Policy Committee on April 27, 1994. At that time, a decision will be made on how to proceed. The USIBWC intends to fast-track this design and construction to have the project completed within 12 months.

3. Mexico has recently completed construction of a pumping plant in Mexico opposite Goat Canyon. This plant will eliminate the flows presently crossing into the United States at that location.

4. The USIBWC will continue to operate "return to sender" pumping plants at Smuggler Gulch, Canyon del Sol, and Stewart's Drain to return transboundary flows to Mexico until the IWTP collection system is completed.

5. Mexico is presently rebuilding their treatment plant at Tecate, Baja California. This plant is scheduled for completion in August 1994 and will treat Tecate flows that presently discharge into the Tijuana River to secondary standards. In addition, pretreatment works at the Tecate brewery are being constructed and will be completed by this summer. These flows will be routed to the treatment plant when the plant is completed in August.

6. Mexico continues to connect to its sewage system flows that have previously discharged to the Tijuana River. This work is to be completed in 1994.

These actions should help assure that sewage flows are reduced and are properly collected and disposed of during the interim period before the entire international treatment plant and the ocean outfall are completed in 1998.

Mr. Chairman, I am pleased to have had this opportunity to provide the Subcommittee with information on this critical project.

"EXHIBIT !"

February 2, 1994

CHRONOLOGY OF EVENTS
REGARDING THE DESIGN AND CONSTRUCTION
OF THE
SOUTH BAY INTERNATIONAL WASTEWATER TREATMENT AND CONVEYANCE FACILITIES

- 1983 ----- Presidents Reagan and de la Madrid signed the agreement "Cooperation for the Protection and Improvement of the Environment in the Border Area" under which Binational Water Work Group was established.
- November 1983 ----- City of San Diego Facility Plan completed with an evaluation of the sites for the International Plant and the "South Bay" site was recommended as the best overall.
- FY 1984 ----- The Appropriations Committee approved a construction grant for \$32,000,000 for the construction of a facility in San Diego to intercept and treat wastewater originating in Mexico.
- FY 1985 ----- EPA received appropriation of \$5,000,000 for initial planning and design of the facility.
- September 30, 1986 ----- Interagency Agreement, Environmental Protection Agency/U.S. Army Corps of Engineers for design and planning of the facility.
- February 4, 1987 ----- Public Law 100-4, promulgated Section 510 authorized international treatment plant.
- February 24, 1989 ----- Concluded Memorandum of Agreement (MOA) for South Bay Land Outfall (SBLO)

Responsibilities are as follow:

City of San Diego - obtain right-of-way for South Bay Land Outfall; provide financial support; obtain environmental clearance for SBLO; enter into agreement for construction management of the SBLO; ownership of SBLO; City peak flows 370 mgd (City's share 29.38%, Federal grant 28.95%, State grant 6.58%).

State Water Resources Control Board - Administer special appropriation; and federal and state grants for the SBLO (State share 3.51%).

U.S. Section - coordination with Mexico; and provide for the operation and maintenance of facilities; Mexico's peak flows 200 mgd.

EPA - coordinate all activities; manage the design; obtain federal funding (EPA share 31.58%).

February-September 1989----- Coordinate design plan and specifications of SBLO.

June 1989 ----- Final geotechnical report for EPA standby interceptor project.

February 16, 1990 ----- Amendment to February 24, 1989 MOA

Additional responsibilities assigned to each agency as follows:

City of San Diego -- obtain all permits for SBLO; reimburse U.S. Section for Construction Management Services of SBLO construction.

SWRCB -- no change.

U.S. Section -- Construction Manager for SBLO; manage federal appropriations for SBLO; coordinate with USACOE and City on construction management.

EPA -- no change.

February 16, 1990 ----- Concluded Interagency Agreement between EPA and USIBWC. Agreement specified the following:

EPA -- review and approve U.S. Section construction management plan; provide USACOE construction coordinator; coordinate with Mexico's Secretaria de Desarrollo Urbano y Ecologia (SEDUE) provide U.S. Section with facility plan for the International Facility; approve Design Plan Schedule for South Bay International Wastewater Treatment Plant (SBIWTP) approve award of all construc-

tion contracts; approve all change orders in excess of \$10,000; approve bidding packages for design of SBIWTP; approve award of all design contracts; approve all design submittals.

IBWC U.S. Section -- provide Construction Management Plan; provide access for EPA and USACOE construction coordinator; prepare bidding packages for design of the SBIWTP; prepare Design Plan Schedule; provide monthly progress reports to EPA.

- July 2, 1990 ----- Signing of International Boundary and Water Commission Minute No. 283, which provides a conceptual plan for the U.S. Government and Mexico to solve the border sanitation problem.
- July 31, 1990 ----- Concluded Memorandum of Understanding between USIBWC and City of San Diego. The agreement stipulates the U.S. Section (IBWC) will provide Construction Management for SBLO, and City of San Diego will reimburse U.S. Section, IBWC for SBLO Construction Management.
- October 2, 1990 ----- Memorandum of Agreement concluded between U.S. Section, City of San Diego, SWRCB, and EPA to delineate responsibilities on the design of this International Treatment Plant, Land Outfall Extension and Ocean Outfall (see attached MOA).
- October 26, 1990 ----- Concluded Draft Environmental Impact Statement for International Wastewater Treatment Plant (SBIWTP).
- November 1990 - April 1991 --- USIBWC prepare published Statement of Work (SOW) for design of the SBLOE, SBOO and SBIWTP.
- February 7, 1991 ----- EPA completed preliminary Draft Biological Assessment for SBLOE, SBOO, and SBIWTP
- April 15, 1991 ----- EPA completed Draft Biological Assessment for SBLOE, SBOO, and SBIWTP.
- May 1991 ----- EPA and IBWC published Draft EIS for SBLOE, SBOO and SBIWTP.

Feb. 15, 1991-Sept. 30, 1993 -	Construction of SBLO administered by IBWC.
May - December 1991 -----	Solicitation, Selection, and Negotiation for/with design firm for SBLOE and SBOO administered by IBWC.
October 25, 1991 -----	Completed Draft Biological Assessment for SBLOE, SBOO, and SBIWTP by EPA.
May 1991 - March 1992 -----	Solicitation, Selection, and Negotiation for/with design firm for SBIWTP for IBWC.
December 26, 1991 -----	Notice to Proceed issued by IBWC to Engineering Science for SBLOE and SBOO design; with Original contract price of \$4,734,316.
Dec. 27, 1991 - Apr. 3, 1992 -	Preparation of Draft Conceptual Design Report by Engineering Science, Inc. for the SBLOE and SBOO.
January 31, 1992 -----	Modification No. 1 made to SBLOE and SBOO design contract -- minor/or significant administrative revisions to the contract with Engineering Science (ES).
March 10, 1992 -----	Modification No. 2, made to SBLOE and SBOO design contract to grant a three week extension for ES to complete the Draft Conceptual Design Report.
Apr. 6, 1992 - Apr. 30, 1992 -	Value Engineering of the Draft Conceptual Design Report conducted by Value Engineering Consultant for the SBLOE and SBOO.
April 7, 1992 -----	Notice to Proceed issued to Malcolm Pirnie for SBIWTP design. Original contract price is \$8,800,000.
April 7, - June 15, 1992 -----	Preparation of Draft Conceptual Design Report for SBIWTP by Malcolm Pirnie.
April 23, 1992 -----	Completed Final Draft Biological Assessment for SBLOE, SBOO, and SBIWTP.
May 6, 1992 -----	City of San Diego verbally mentioned at the Technical Work Group Meeting the possibility of not building the Clean Water Program (CWP) South Bay Facilities, thereby reducing the flows in the SBLOE and SBOO.

May 27, 1992 ----- Malcolm Pirnie met with all reviewing agencies to discuss comments to the mini conceptual design packages submitted by Malcolm Pirnie to the agencies for review.

May 28, 1992 ----- Modification No. 3, made to the SBLOE and SBOO design contract -- Unilateral change order to begin initial dilution study.

May 28 - July 7, 1992 ----- Preparation of the Draft Initial Dilution Study by Engineering Science for the purpose of South Bay Ocean Outfall.

June 6, 1992 ----- Modification No. 1, made to the SBIWTP design contract to change the peaking factor of the Ultimate average daily flow of a 100 MGD plant from 3 to 2 (\$5,830).

July 9, 1992 ----- Modification No. 4, made to Engineering Science, Inc. for the SBLOE and SBOO design contract to make definite the change order for initial dilution study. (\$90,936)

July 10, 1992 ----- EPA informed the U.S. Section of the \$239,400,000 appropriation cap by the House Committee on Public Works and Transportation.

July 16, 1992 ----- Modification No. 5, made to the Engineering Science, Inc. for the SBLOE and SBOO design contract to grant a nine week time extension for government review of Conceptual Design Report.

July 21, 1992 ----- Preliminary Design Package No. 1 - South Bay International Wastewater Treatment Plant, prepared by Malcolm Pirnie.

July 27, 1992 ----- Concluded Draft Biological Assessment for the SBIWTP by EPA,

July 27, 1992 ----- City Council of the City of San Diego votes to reduce peak flows in the SBLOE and SBOO from 146 MGD to 58 MGD, and to not build CWP South Bay Facilities.

July 29-30, 1992 ----- In-house review by all agencies with Malcolm Pirnie of the Preliminary Design Package No. 1 for SBIWTP.

July 31, 1992 ----- City advised agencies of City Council's Decision to reduce peak flow in the SBOO assigned to the City from 146 mgd to 58 mgd, and not to build the CWP South Bay Facilities.

August 20, 1992 ----- Approved modification No. 2 of the SBIWTP design contract to perform mineral resources study for COE appraisal of the SBIWTP site.

August 20, 1992 ----- Completed Final Report of the Initial Dilution Study by Engineering Science, Inc.

September 16, 1992 ----- Policy Committee Meeting in Sacramento to decide:

- 1) to further evaluate the tunnel option,
- 2) to further evaluate the 80:1 Initial Dilution,
- 3) to design SBIWTP assuming no flow equalization,
- 4) to reassess the design of conventional activated sludge verses selector process design,
- 5) to target \$130,000,000 for construction cost of SBIWTP,
- 6) to recalculate the State's share as 10% of federal costs,
- 7) to design the SBIWTP in a modular fashion, and
- 8) to design the Headworks for 100 mgd.

December 15, 1992 ----- Modification No. 3 made to Malcolm Pirnie for the SBIWTP design contract to perform treatability study and jar testing of Tijuana Sewage. (\$73,871)

February 1993 ----- EPA and USIBWC completed draft EIS for SBLOE, SBOO, and SBIWTP.

February 25, 1993 ----- Issued modification No. 4 to Malcolm Pirnie for SBIWTP design contract (\$357,349). Scope of work as follows:

- 1) Design treatment plant for average flows of 25 MGD with peaking factor of 3, and ultimate average flows of 100 MGD peaking factor of 2,
- 2) Design plant in modular components,
- 3) Allow convenient plant expansion and minimize Phase 1 construction costs,
- 4) Allow for three United States electrical power sources,
- 5) Plant Hydraulic capacity of 100 mgd,
- 6) Target construction cost \$130,000,000.
- 7) Design and make no provision for CWP South Bay Plant,
- 8) Design with guidance of latest WEF and ASCE manuals,
- 9) Provide conversion to Systeme Internationale (SI),
- 10) Evaluation of all Tijuana Sewage, and provide effluent constituent concentrations for 6 blending scenarios and prepare an Ocean Plan Assessment Report,
- 11) Evaluate chemically assisted sedimentation verses conventional sedimentation,
- 12) Evaluate chlorination contact within SBLO,
- 13) Further evaluation of FEB,
- 14) Further evaluate conventional Activated Sludge verses Selector Process,
- 15) Evaluate the effects on the DAF and GBT from chemically assisted sedimentation,

- 16) Further evaluate cost saving for site grading,
- 17) Avoid possible hazardous site located on Hofer property,
- 18) Participate in VE review.

April 23, 1993 ----- Issued modification No. 6 to Engineering Science for SBLOE and SB00 design contract - (\$413,480). Scope of work is as follows:

- 1) Provide revised Conceptual Design Report,
- 2) Design for reduced flows of 132 MGD average and 258 MGD peak,
- 3) Perform overall hydraulic computations,
- 4) Conceptual design of tunnel,
- 5) Provide ROW widths requirement,
- 6) Provide allowable effluent limits summary tables for blending scenarios from MP,
- 7) Perform additional geotechnical for tunnel design,
- 8) Provide conversion to SI,
- 9) Provide support in preparation of EIS related to SBLOE and SB00,
- 10) Prepare Pre-discharge baseline plan.

May 3, 1993 ----- Draft Ocean Plan Assessment Report published by Malcolm Pirnie.

May 26, 1993 ----- Draft Pre-discharge Baseline Monitoring Plan prepared by Engineering Science.

June 7, 1993 ----- Draft Biological Assessment for SBIWIP prepared by Regional Environmental Consultants for EPA.

July 6, 1993 -----	Draft Revised Conceptual Design Report for SBLOE and SBOO by prepared by Engineering Science.
August 18, 1993 -----	Final Pre-discharge Baseline Report by Engineering Science for USIBWC.
September 1, 1993 -----	Meeting with Malcolm Pirnie and all agencies to settle differences in design criteria for SBIWTP.
September 2, 1993 -----	Engineering Science, Inc. completed Final Revised Conceptual Design Report for SBLOE and SBOO
September 2, 1993 -----	Issued modification No. 7 to Engineering Science for the SBLOE and SBOO design contract to give Credit for geotechnical work not completed and revision to Pre-discharge baseline study to include sampling in Mexico. (-\$4,882)
September 17, 1993 -----	Policy Committee Meeting in San Francisco resolving in agreement that: 1) Policy members or designees will make decisions for their agencies and will meet on an as need basis to avoid further delays, 2) City will draft revision of Design MOA to include City as Construction Managers for SBOO, 3) Design will proceed with 100:1 tunnel outfall.
October 13, 1993 -----	Issued modification No. 8 to Engineering Science for the SBLOE and SBOO design contract to perform geotechnical planning and permitting services for tunnel design. Contract amount increased by \$23,667 to a total contract amount of \$5,307,517.
October 29, 1993 -----	Issued modification No. 5 to Malcolm Pirnie for the SBIWTP design contract. Increased contract amount by \$180,338, for a total amount of \$9,463,217.

- 1) Provide comparison of Draft Conceptual Design recommendation with direction provided at the September 1, 1993 meeting with Malcolm Pirnie,
- 2) Eliminate FEB,
- 3) Evaluation of effluent constituent concentrations for 6 blending scenarios of annual average influent loading conditions and prepare an Ocean Plan Assessment Report,
- 4) Evaluation of Lime stabilization verses Anaerobic digestion,
- 5) Design criteria to be based on annual average wastewater strength.

November 23, 1993 ----- Final Conceptual Design Report for the SBIWTP published by Malcolm Pirnie.

December 2, 1993 ----- Issued modification No. 6 to Malcolm Pirnie for the SBIWTP design contract (\$76,000). Unilateral issued to proceed with design until design costs are negotiated or before costs exceed \$9,539,217.

- 1) Relocate plant to USIBWC property,
- 2) Perform additional geotechnical investigations on new site and provide foundation stability alternatives,
- 3) Basis of design as defined in Chapter Chapter 24 of the Final Conceptual Design Report with changes indicated in this Modification,
- 4) Design for flood protection,
- 5) Relocate emergency connection,
- 6) Delete Flow Equalization for design,
- 7) Design for Lime Stabilization and Pasteurization and delete design for anaerobic digestion,
- 8) Design for interim sodium hypochlorite disinfection for advanced primary site,

- 9) Coordinate acquisition of the NPDES and APCD permits,
- 10) Provide support for acquisition of the 404 permit,
- 11) Delete requirement for formal government review periods,
- 12) Provide cost estimates for all plans and specifications packages,
- 13) Provide separate solicitation packages for:
 - a) Site Preparation,
 - b) 25 MGD Advanced Primary Plant,
 - c) 25 MGD Secondary Plant,
 - d) Canyon and Conveyance Facilities.
- 14) Participate in two Value Engineering Workshops for Advanced Primary plant and Secondary Plant,
- 15) Design water service requirements from water mains located near I-5 Highway to SBIWTP.

December 9, 1993 ----- Initiated Section 7 Consultation with Fish and Wildlife Service

January 28, 1994 ----- Issued modification No. 9 to Engineering Science, Inc. for SBOO design contract. Increased contract amount by \$3,988,211 to a total amount of \$9,295,728. Scope of work is as follows:

- 1) perform geophysical surveys,
- 2) perform Cultural Resource investigations,
- 3) perform land and offshore borings,
- 4) groundwater sampling for NPDES permit,
- 5) dredge Material Sampling and Analysis,

TESTIMONY OF NANCY KAUFMAN, DEPUTY ASSISTANT DIRECTOR-WASHINGTON,
D.C. REGION, UNITED STATES FISH AND WILDLIFE SERVICE, BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT, COMMITTEE ON PUBLIC
WORKS AND TRANSPORTATION, REGARDING THE INTERNATIONAL BOUNDARY AND
WATER COMMISSION'S WASTEWATER TREATMENT PLANT AND OUTFALL
FACILITIES

April 13, 1994

Mr. Chairman, thank you for the opportunity address the involvement of the Fish and Wildlife Service in the planning process for the International Wastewater Treatment Plant and Outfall Facilities.

For a number of years, we have provided technical assistance to the Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (Corps), International Boundary and Water Commission (IBWC), and the City of San Diego (City). From our initial involvement in this project, we have urged these Federal and State agencies to avoid, minimize, and offset impacts to sensitive wetlands habitats and federally listed threatened and endangered species.

BACKGROUND ON THE ENVIRONS

The Tijuana River Valley, where the proposed treatment plant and outfall would be located, is rich in biological resources. The river valley is characterized by extremely variable streamflow, with extended periods of drought interrupted by heavy floods during wet years. Three-quarters of the Tijuana River watershed, which comprises 1,735 square miles, is located within Mexico.

Three major habitat types occur in the area: estuarine and coastal salt marsh and riparian woodlands occur in the Tijuana River floodplain, and coastal sage scrub habitat grows on the hillsides bordering Mexico.

The Tijuana River National Estuarine Research Reserve (Reserve), which is approximately 2,500 acres, encompasses the majority of the estuarine and coastal saltmarsh habitats. The Reserve is comprised of the Tijuana Slough National Wildlife Refuge and Border Field State Park. The Reserve is one of only 21 such reserves located in the United States. Maintaining the estuary as a functioning ecosystem is an extremely important objective of the Service, because 91 percent of all wetlands in California and 53 percent nationwide have been destroyed by urban and agricultural development.

This estuary supports a diversity of fish and wildlife resources, including approximately 40 species of fish, 13 species of amphibians and reptiles, 24 species of mammals, and 302 species of birds. Seven of these species are listed and receive protection under the Endangered Species Act (ESA), including: the least Bell's vireo, light-footed clapper rail, California least tern, western snowy plover, brown pelican, peregrine falcon, and salt-marsh bird's beak.

In addition the Service recently emergency listed the Pacific

pocket mouse as endangered. Potential habitat for this species is present throughout the entire valley. The wetlands of the estuary also support a large subpopulation of Belding's savannah sparrow, a State listed endangered species.

The riparian woodland community is dominated by willow (Salix sp.) and mulefat (Baccharis glutinosa). Riparian woodlands cover less than one-half of one percent of San Diego County's lands. Over 90 percent of all riparian woodlands in California have been destroyed. In addition, riparian woodlands in San Diego County have been reduced by nearly two-thirds since the early 1970's. Notwithstanding the relative scarcity of this vegetation type, it is of extremely high biological importance. For example, the Service has documented over 100 species of birds which utilize riparian vegetation within the Tijuana River Valley. The endangered least Bell's vireo (vireo) is one of these species and is totally dependent upon riparian vegetation for nesting and feeding activities.

Coastal sage scrub is the habitat type found along the foothills of the river valley. Typical habitat constituents are relatively low-growing, drought-deciduous and succulent plant species such as coastal sagebrush, several species of sage, California buckwheat and various species of cactus and cholla. It has been estimated that as much as 90 percent of coastal sage scrub vegetation has been lost as a result of development and land

conversion. It provides essential habitat for the California gnatcatcher, a federally threatened species.

SERVICE INVOLVEMENT

Our initial involvement with the sewage issue was a letter dated September 1, 1988, to the Regional Administrator of EPA in San Francisco, California. In that letter, the Service advised EPA that we disagreed with their findings that an environmental impact statement (EIS) would not be needed for the project to collect and pump sewage back to Mexico.

At that time EPA was planning and designing a land outfall pipe to carry future sewage flows without addressing essential project features such as a diversion, collector system, and a pump station. The total project was likely to result in impacts to sensitive wetland habitats and adverse effects on federally listed species. The Service recommended that an EIS be prepared to address all project features and effects, and to evaluate project alternatives.

In a letter dated February 15, 1989, EPA advised the Service that they wanted to initiate formal consultation on the land outfall portion of the International Wastewater Treatment Plant project, pursuant to the ESA. They also informed us that the City had applied for a Federal construction grant in anticipation of the possibility of jointly utilizing conveyance facilities.

In a letter dated June 8, 1989, the Service indicated additional information was needed before consultation could be initiated. Key issues needed to be addressed and further information was needed to better specify and document the adequate avoidance of impacts to endangered species and sensitive habitats such as riparian woodlands.

Between May 1989 and January 1990, the Service had a series of meetings with EPA, IBWC, Corps, and the City to discuss measures that could be incorporated into the land outfall project to avoid and/or minimize the environmental impacts associated with the project. These meetings focused on the potential effects to riparian habitat associated with the 12,300 foot long, 145 foot wide construction corridor, and the pumping of groundwater from the 25-foot deep construction trench that was to be excavated to contain the 12-foot diameter land outfall pipe.

In a letter dated February 7, 1990, EPA requested the Service to initiate formal consultation pursuant to section 7 of the ESA on the land outfall portion of the project. On April 16, 1990, the Service issued a Biological Opinion concluding that the project would not jeopardize the continued existence of the least Bell's vireo, California least tern, or light-footed clapper rail.

However, the Biological Opinion did identify specific measures that should be incorporated into the project to compensate for unavoidable impacts to riparian habitat and measures to avoid

harm and harassment of listed species. These measures were jointly developed by the Service, EPA, IBWC and Corps in the meetings held before formal consultation was initiated.

In a letter dated December 20, 1990, IBWC announced its intention to capture up to 13 million gallons per day of Tijuana River flows contaminated with sewage. The Service advised EPA and IBWC in letters dated February 22, 1991, that removal of such large flows from the Tijuana River could adversely affect the riparian woodlands depended upon by the endangered least Bell's vireo. We requested their cooperation and technical assistance in determining the importance of the water sources in maintaining the 750 acres of riparian woodlands. The amount of water entering the river valley had already been diminished by extended drought and ground water pumping for agriculture.

In May 1991, the draft EIS for the International Wastewater Treatment Plant and Outfall Facilities was released for public review. This document was the first effort by IBWC, EPA, and the Corps to describe in detail the proposed facilities associated with the International Wastewater Treatment Plant. In a letter dated July 24, 1991, the Service provided extensive comments on the proposed facilities discussed in the EIS and the draft Biological Assessment.

The Service disagreed with the conclusion reached in the

Biological Assessment that the proposed project would not adversely affect the California least tern, the brown pelican, and the light-footed clapper rail. We carefully detailed the likely impacts and provided specific measures to avoid or offset the impacts to listed species.

The second major issue raised by the Service concerned the removal of water from the Tijuana River system. A collector system placed in the river valley would not necessarily be able to discriminate between sewage flows and natural river flows resulting from rainfall events. The Service asked that an alternative source of water be found for maintaining the quantity and quality of existing riparian habitat, for groundwater recharge, and for live-stream discharge.

In April 1991, the Service initiated coordinated efforts with personnel from the IBWC field office concerning construction of the land outfall project. Through the remainder of 1991 and through the summer of 1992, the Service made periodic field visits with IBWC staff to keep abreast of construction activities and assist IBWC if they encountered any conflicts with proposed construction activities that might affect endangered species. This close working relationship allowed for minor adjustments to the construction activities that averted impacts to the least Bell's vireo. Additionally, the cooperative effort avoided several potential delays in the construction schedule. For

example, it justified permitting the construction work to proceed through the vireo's nesting season.

The Service's provision of technical assistance to IBWC and EPA continued in a letter dated November 21, 1991 to IBWC, wherein we provided review of contract documents for the replacement of riparian habitat eliminated by construction of the land outfall facility. We provided technical review of site-grading, planting, and irrigation of the project's mitigation areas.

In a letter dated December 11, 1991, the Service responded to a request made by EPA for additional biological information. EPA incorporated the information into a revised Biological Assessment.

Because of concerns over the removal of flows from the Tijuana River, the State Water Resources Control Board prepared a document entitled "Hydrogeological Assessment of the Tijuana River Valley Report." This report was incorporated as an appendix to a draft Biological Assessment. It concluded that the removal of sewage flows and a return to natural intermittent stream conditions would not cause adverse effects to the survival of phreatophytes (e.g., riparian habitat) in the floodplain. The report contended that the primary factor for the past losses of riparian habitat within the river valley was the physical destruction caused by human activities, such as agriculture and

sand and gravel extraction.

The Service agreed with the State Water Resources Control Board's assessment for wet and normal rainfall years. However, under extended drought conditions, the Service contended that there may not be adequate recharge to provide enough water to maintain the wetlands, particularly given the projected water losses due to groundwater pumping.

Our analysis and supporting references were sent to the State Water Resources Control Board in a letter dated May 26, 1993. The major differences in our viewpoint on this subject was the consumptive use estimates for riparian vegetation. The State Water Resources Control Board was using a 1.33 acre-foot/acre as the "average annual consumption of groundwater by phreatophytes" compared to our estimate of 4.61 to 4.97 acre-feet/acre/year. Our consumptive use estimates were based on information prepared by the Bureau of Reclamation for a local project.

The Service continued to provide technical assistance to IBWC, EPA and the Corps on mitigation features of the project through May 1993. It was approximately during this time period that we learned from the Corps that serious consideration was being given to tunneling the land and ocean outfall underneath the estuary and nearshore beneath the Pacific Ocean. We encouraged the Corps to pursue this alternative, in lieu of excavating an open trench,

because this alternative eliminated many significant impacts to the estuary and several State and Federally listed endangered species.

In October 1993, the Service attended a meeting to discuss alternative means of treating the sewage flows in the Tijuana River valley. This meeting was chaired by the Commissioner of IBWC and attended by the Deputy Consul General of Mexico and representatives from the local congressional offices of Senators Boxer and Feinstein and Representatives Filner and Cunningham. The potential for the immediate construction of advanced integrated wastewater treatment ponds was revealed at this meeting.

These biological treatment ponds could apparently be designed to provide tertiary treatment. These ponds could be built rather quickly and would provide a source of water for the river valley. Subsequently, the Service, in a letter dated November 3, 1993, to Commissioner Gunaji recommended that IBWC pursue this alternative. We imparted that this alternative could provide a solution for the cleanup of sewage, a source of permanent water for wetlands and wildlife, and irrigation water for sod field, farmlands, and county parks.

A permanent water source for the Tijuana River valley is of vital importance to critical riparian resources, perhaps exemplified by

the least Bell's vireo. In 1992, 30 territorial vireo males and 28 least Bell's vireo pairs were documented in the Tijuana River Valley. By 1993, there were 52 defended territories and 43 pairs. Based upon the latest information, only the Santa Margarita and San Luis Rey River valleys in San Diego County had larger populations.

With the third or fourth largest least Bell's vireo population in California, a significant portion of the Tijuana River floodplain was designated "critical habitat" on February 2, 1994. The Service made a request of IBWC for a written response to the issue of "critical habitat" and expect to hear from them soon.

Since the project had expanded and changed significantly, EPA requested formal consultation for the International Wastewater Treatment and Ocean Outfall Facility on December 6, 1993. The Service, in a letter dated January 17, 1994, acknowledged the receipt of the request for consultation. The consultation will evaluate project impacts to the least Bell's vireo, California gnatcatcher, California least tern, and the Pacific pocket mouse. The Pacific pocket mouse was emergency listed as endangered by the Service on February 3, 1994.

The Service is currently preparing a draft Biological Opinion and will submit this document to IBWC, EPA, and the Corps for their review and comment. We will finalize the Biological Opinion by

the end of April 1994.

The Final EIS for the project, encompassing all project features was issued in February 1994. Comments are due in early April. The Service has established a close working relationship with the other agencies in planning for this project and provides input on a regular, even daily basis. We hope that this working relationship will expedite the review process and provide for sound decision-making in the immediate future.

Again, Mr. Chairman, thank you for the opportunity to provide the Service's views on this issue. I will be happy to respond to questions.

TESTIMONY OF
ROBERT PERCIASEPE
ASSISTANT ADMINISTRATOR FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
OF THE
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

April 13, 1994

Good afternoon, Mr. Chairman and members of the Committee. I am pleased to be here representing the U.S. Environmental Protection Agency (EPA), together with Alexis Strauss, Deputy Water Division Director of EPA's Region 9 office. I regret that I was unable to be here earlier to hear the testimony of your other witnesses, and I appreciate your willingness to accommodate my schedule conflict with another House Committee hearing.

EPA has played a significant role in the conception and design of the International Wastewater Treatment Plant and outfall facilities in San Diego, California. The treatment plant serves the City of Tijuana, and the outfall serves the needs of both San Diego and Tijuana. We are proud of our work to expedite completion of this project, and I am pleased to tell the members of the Committee that our plans now call for completion of the first phase of the International Plant by the end of calendar year 1995 -- a full three years ahead of schedule. I intend to do everything I can, Mr. Chairman, to assure that the International Plant remains on schedule and on budget, so that it is up and running as quickly as possible. That is important to EPA -- and to this Administration -- because of its promise of major economic benefits to the people and the businesses of Southern California, and of significant reduction in health and

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environmental risks -- to the millions of people on both sides of the border, and to the Tijuana River Estuary.

We at EPA know that completion of this plant is also important to the members of this Committee, and particularly to Congressman Filner who has been a very positive motivating force in helping us deal with this extraordinary situation. EPA appreciates the Committee's attention and efforts, and we expect that you will help to keep the process moving.

I want to assure you, Mr. Chairman, and the members of this Committee, that design of the International Plant is proceeding in preparation for construction on the accelerated schedule. I am aware that, in the past, there have been a number of construction delays and varying cost estimates. I am committed to taking all reasonable steps to expedite construction and assure that the project is managed better in the future. I will work closely with you to achieve these goals.

I intend to address each of these topics in detail, but first let me lay a bit of groundwork for those members of the Committee who are less familiar with the border region and the International Plant site.

Mr. Chairman, the problem we are dealing with on the U.S.-Mexico border is not a new one -- sewage contamination problems in the Tijuana River, in the United States, have been chronic since the 1930s. The reasons are much less complicated than the solutions. The first reason concerns the incredible growth of Tijuana, Mexico. In 1928, Tijuana was a community of just 500 people connected to a single septic tank; its present population of more than a million makes it perhaps the sixth

largest city in Mexico. The second reason for the problem is the lack of adequate infrastructure to handle that growth. For all of its 1990s sophistication and metropolitan bustle, Tijuana depends today on a single sewage treatment system, put into operation in 1988, but which is incomplete and overloaded. In 1991, that system allowed an average of ten to 12 million gallons a day of raw sewage to flow into the Tijuana River, and into this country.

EPA's efforts, in concert with those of the government of Mexico, the International Boundary and Water Commission (IBWC), the State of California (State) the City of San Diego (City), and the U.S. Army Corps of Engineers (Corps) are designed to remedy this decades-old problem and to restore health and economic benefits to a key area of this nation.

It is a fact of U.S.-Mexico border topography that the land slopes toward the U.S. When sewage collection and treatment facilities in Tijuana fail or become overloaded, the flow naturally gravitates into our country via the Tijuana River or through adjacent canyons and gullies. The raw wastewater contaminates the Tijuana River, its estuary, and the ocean shore. This has happened many times during the past 50 years.

While we in the U.S. have been fortunate that there have been no widespread outbreaks of disease, the threat of an epidemic has always been with us. We have been forced to curtail use of some of our lands and some of our most beautiful recreational facilities in order to protect the public health. The closed beaches and

roped-off lands have exacted a heavy price from our tourist industry, and it has kept thousands of U.S. citizens from enjoying part of their national birthright.

The contaminated wastewater has also threatened valuable ecosystems including numerous endangered plant and animal species, and the Tijuana River National Estuarine Research Reserve.

EPA has been involved in the efforts to meet this challenge since the mid-1980s. In July, 1990, the U.S. Section of the IBWC signed a Minute of Agreement with the government of Mexico for the building of the International Plant. Just three months later, in October, 1990, EPA entered into an Interagency Agreement with the IBWC and others, forming a partnership to build the International Plant. It is important that you understand the roles of the various signatories to that Agreement which meet together as a Policy Committee to direct the course of the project:

- ▶ EPA requests the necessary funds from Congress under Section 510 of the Water Quality Act of 1987 and assures that Clean Water Act objectives and requirements are met in the project. Congress has given us the role of distributing Section 510 funds, and we coordinate the activities of all of the parties involved in the project.
- ▶ The U.S. Section of the IBWC is the conduit for obtaining needed approvals from Mexico and otherwise communicating with the Mexican government. IBWC is also design manager for the International Plant and ocean outfall. Finally, IBWC will operate and maintain the plant when it is built, using U.S. and Mexican funds.
- ▶ The City of San Diego has shared in the outfall project costs, applied for necessary land use permits, and has acted as the responsible local entity to receive and disburse State project funds and federal grant funds.
- ▶ The California State Water Resources Control Board has provided State funds to match the federal construction grant for the outfall portion of the project, the Board has received a special appropriation as a match for construction of the

pipeline connecting the Plant to the ocean outfall, and the Board provides invaluable technical assistance to the Policy Committee.

Although it is not a member of the Policy Committee, the Corps of Engineers has an important project role nonetheless. The Corps designed the land outfall, which has been completed and is a critical component of the project, and the Corps has agreed to serve as construction manager for the International Plant itself.

EPA and its partners have maintained an ongoing informal dialogue, apart from meetings held pursuant to our formal relationship through the IBWC Minute and the Interagency Agreement. Our weekly conference calls and monthly meetings have been helpful in moving the design process along.

The International Wastewater Treatment Plant envisioned in the Minute and Interagency Agreement of 1990 was designed to treat 25 million gallons-per-day of Tijuana wastewater. The preliminary design placed the plant just on the U.S. side of the border because of the topography I mentioned, and the resultant shortage of suitable land on the Mexican side. The plant was designed to intercept Mexican sewage at Tijuana Pumping Station Number One, near the border. It would treat the sewage to "secondary" Clean Water Act standards, and discharge the effluent through an ocean outfall sufficiently far from shore to avoid both human health and ecosystem damage.

Functional plans for the plant remain sound and unchanged today, but its features and accessories have grown in complexity, and consequently, cost estimates have fluctuated. These are the major reasons why:

- ▶ Need For Conservative Design. The members of the Policy Committee did not anticipate the difficulty in obtaining detailed information from the Mexican government on current and projected sewage content and flow rates from Tijuana. This uncertainty has required a more conservative design.
- ▶ Major Change in Outfall. Oceanographic studies showed the need to better protect the ocean environment, and drove a decision to extend the ocean outfall length from one to 3.5 miles.
- ▶ Inflation. Some of the increases in Plant and ocean outfall cost estimates are due to inflation, which has been exacerbated by project delays.

While further increases may result from future emergency actions, there is also the possibility that construction bids will be lower than estimated because of the current spirited competition among contractors.

It is important to note that, since 1991, overall project cost estimates have remained nearly constant, with estimates for some components rising and others falling.

The primary project cost issue since 1991 has been the sharing of costs among project participants. While total project cost estimates have risen five million dollars, from \$378 million at the end of 1991 to \$383 million today, there could be a significant funding shortfall as a result of decreasing project cost shares from the State and the City.

- ▶ California has indicated that it has no plans to contribute more than the \$5.3 million it has already contributed -- much less than the ten percent of total project cost we had originally expected.
- ▶ San Diego's contribution to the ocean outfall is still uncertain. It is now expected to be 35 percent, but may be as low as 22 percent, whereas in 1991 it was expected to be 42 percent.

Through fiscal year 1994, Congress has supported the International Plant with appropriations of \$186.9 million. President Clinton has requested an appropriation of \$52.5 million for fiscal year 1995 that will bring EPA to its authorized ceiling amount of \$239.4 million. We very much appreciate that Congressional support.

Now, let me address the scheduling delays which have frustrated all of us, and most of all the Southern Californians who have lived with this problem for so long. The original project schedule called for project completion, with full secondary wastewater treatment and a one-mile ocean outfall, in four years. That would have the Plant up and running this year! However, EPA's experience with the construction grant program indicates that other projects of similar size and environmental sensitivity in California have taken about seven years to complete. In fact, the last comparable new ocean outfall, in San Francisco, took ten years to plan, design and build.

Other circumstances also bred delays, some of which I mentioned earlier in the context of increased costs:

- ▶ Outfall Tunneling. The site judged best for the International Plant is upstream from the Tijuana River Estuary, a unique and sensitive estuary of national importance containing several endangered species. In order to minimize construction and operation effects there, and to satisfy the concerns of the U.S. Fish and Wildlife Service of the Department of the Interior (USFWS), we changed our plans to consider a tunnel under the estuary through which the plant effluent could be routed, instead of sending it through a conventional pipe laid in a trench dug through the estuary. Feasibility studies showed the tunnel to be both economically and environmentally superior, and we are proceeding with that design. Tunnelling may take slightly longer than trenching, but the schedule for trenching assumed optimal weather conditions. In the event of unfavorable weather, tunneling may turn out to be comparable in speed.

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- ▶ Site Changes. San Diego's decision in 1992 to withdraw plans to build a City wastewater treatment plant adjacent to the International Plant required a redesign of the ocean outfall to make it smaller, and resulted in redesign of the International Plant to fit the new site. This delayed the design process.
- ▶ Design and Cost-Sharing Disagreements. Due to the inability to obtain detailed information from the Mexican government on current and projected sewage content and flow rates from Tijuana, representatives of EPA, IBWC, the State and the City meeting as a Policy Committee found that they had to weigh the need to stay within budget against the need to ensure treatment reliability. Their different perspectives sometimes resulted in protracted technical disagreements and resultant delays. In addition, disagreements over cost-sharing among project participants caused some delays.

But EPA did not regard these reasons as excuses, Mr. Chairman. This Administration is sensitive to California's cries for help, and the President has taken personal interest in this problem and its solution. When Governor Wilson and the Mayors of San Diego and Imperial Beach issued declarations of emergency and Congressional representatives voiced their concerns last Fall, the Policy Committee responded in November, 1993 by deciding to proceed with a modular, fast-track, approach to the International Plant:

- ▶ Modular Design. Design and construction of advanced primary treatment facilities, including disinfection, is being accelerated and will be completed by the end of calendar year 1995. That lets us quickly tackle the biggest problem on this part of the border: giving overflows of raw sewage from Tijuana's sewer system a significant degree of treatment, and greatly reducing effects on public health and the environment. Once the advanced primary module is completed, construction of a secondary treatment module will begin.
- ▶ Ocean Outfall. As the primary module is being built, the ocean outfall will also be under construction on a fast track, in order to be completed in early 1998.

Implementing the fast-track process will be a challenge, and EPA and its partners in this project have taken steps to assure that the necessary resources and personnel are devoted to the timely completion of the fast-track project:

- ▶ The Policy Committee is working toward agreement to allow the Corps of Engineers to manage plant construction, and the City of San Diego will manage construction of the ocean outfall, bringing additional resources to bear on Plant construction.
- ▶ EPA intends to provide the Corps and the City of San Diego authority to hire sufficient personnel or consultants to adequately manage construction and avoid delays.
- ▶ IBWC, which is managing design of the International Plant and the ocean outfall, has reassigned additional technical and managerial staff to its San Diego office to accelerate the project.

EPA is satisfied that the new fast-track schedule, which calls for first-stage Plant operation to begin in 1995 -- just five years after the signing of the Minute Agreement, and for operation of the ocean outfall three years later at about the time secondary sewage treatment begins, is both realistic, and an appropriate response to the sense of urgency that has been communicated so clearly to us.

In addition to these measures, the Policy Committee has agreed to pursue several additional immediate actions:

- ▶ Sewage beyond the capacity of the Tijuana wastewater treatment plant to process is being piped to San Diego's municipal treatment plant via an emergency connection. IBWC reimburses San Diego for treating the extra sewage. This connection has limited capacity, but it should be sufficient until the International Plant is operational next year. However, it should be noted that we would not be able to capture all sewage flows if the area experiences a heavy rainfall event.
- ▶ IBWC is working to identify funding to replace the obsolete pumps now being used by Tijuana with new, higher capacity pumps. This will be a relatively

inexpensive way for Tijuana to convey more sewage, more reliably, to its existing treatment plant and reduce the likelihood of spills across the border.

- ▶ EPA and IBWC are studying a plan to store in the existing land outfall pipe sewage which escapes the Tijuana plant during peak flow hours. The sewage would then be returned to Mexico during off-peak hours. If this system proves technically and economically feasible it will provide an alternative to use of the emergency connection.

It is fortunate that Mexico has made considerable progress in upgrading its sewer system. A recent IBWC investigation showed that only one or two million gallons a day of raw sewage now eludes the sewer system and makes its way to the river. This is a tremendous improvement from the average ten to 12 million gallons a day observed in 1991 and early 1992. Mexico plans to complete improvements to its collection system this year and is committed to ensuring that the system captures all raw sewage before it reaches the river. Completion of the collection system is an important part of the solution to the Tijuana River contamination problem.

Mr. Chairman, while EPA and its partners in the International Plant project are absolutely dedicated to timely completion of the International Plant and its components, I must make it clear that this depends on several factors beyond EPA's direct control:

- ▶ Cost Estimates. Costs for both the first module of the International Plant and the ocean outfall are still uncertain at this stage of design. We will know better how much fast-track construction will cost once we receive the primary treatment module construction bids, which we expect by the end of this year.
- ▶ Cost Sharing. Cost-sharing arrangements have not yet been completed, so we do not yet know whether funds beyond the EPA appropriations cap may be necessary to complete the project. IBWC is negotiating Mexico's share of the project, based on what it would cost Mexico to build its own treatment plant in Mexico. The State of California has indicated that it has no plans to contribute more than the \$5.3 million it has already contributed -- an amount

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smaller than the ten percent share we had originally expected. San Diego's contribution to the ocean outfall cost is still uncertain. In 1992, its commitment dropped from 42 percent to 22 percent of total project cost, but it is considering increasing its contribution to 35 percent. I want to make it clear that State and City contribution variations will affect only funding for the secondary treatment module. Depending on the outcome of cost sharing and construction bids, EPA sees a potential total shortfall of up to \$46 million.

- ▶ Sewage Flow/Composition Studies. IBWC has only recently been able to begin obtaining detailed sewage flow records for Tijuana, and we are now in the process of revising flow projections. The expected increase in Mexican industrialization because of the North American Free Trade Agreement (NAFTA) could add considerably to treatment costs. Businesses such as automotive repair and machine shops can impose large wastewater treatment demands. We have reserved enough land at the plant site to be able to expand treatment capacity to 100 million gallons per day if necessary, contingent upon binational agreement, of course. If revised projections show that less land is needed, we may be able to use pond treatment systems which could cost much less to construct and operate. We are not sure whether ponds of the appropriate size would do the job, however, and the State is now funding a technical analysis of these systems.
- ▶ Habitat Mitigation. As I am sure you heard earlier from Mr. Plenert of the USFWS, we have funded several studies at the Service's request, addressing such subjects as the drought tolerance of riparian habitat, the hydrogeology of Tijuana River Valley ground water, the noise effects of proposed construction, and even how the riparian vegetation in the valley would fare without sewage flowing in the Tijuana River. This last issue required two separate studies to address to the satisfaction of the Service. We are now funding a study to find out whether the Plant site may be habitat for the Pacific Pocket Mouse, which the Service has just declared endangered. The Service had earlier told us there was little, if any, potential mouse habitat in the entire Tijuana River Valley. If it turns out that the Plant site harbors Pacific Pocket Mice, there will likely be further delays as we negotiate over mitigation actions.

CONCLUSION

Mr. Chairman, EPA believes that the International Wastewater Treatment Plant and outfall facilities will mark a turning point in our half-century-old efforts to control sewage from Tijuana. Building this plant will not be cheap, and it will not be easy,

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given the magnitude of this project, but that is certainly not out of character with the history of sewage control problems at this part of the border. With the active cooperation of the City of San Diego, the State of California, the U.S. Fish and Wildlife Service, the IBWC, the Corps, the Congress and this Committee, I am confident that it will be finished on time, and that the results will be worth the effort.

We expect planning and finance of future border pollution control projects to take a decidedly different form, thanks to Congressional support of the President's initiative to pass the NAFTA last November. NAFTA, and its subsequent agreements, create a new environmental infrastructure paradigm for the border utilizing the Border Environment Cooperation Commission and the North American Development Bank. This new paradigm places communities and States in positions of leadership for projects, and then marshals the resources of the two great federal governments and the enormous power of the private sector to help them. This will be an exciting and gratifying time for those of us working to help people on the border to establish the infrastructure they need to realize their economic and personal potential.

EPA appreciates the Committee's interest in the International Plant, Mr. Chairman, and your efforts -- and those of Congressman Filner -- to accelerate the design and construction. We look forward to our further work together on this great project.

I will be happy to answer any questions you or the members of the Committee may have. Thank you.

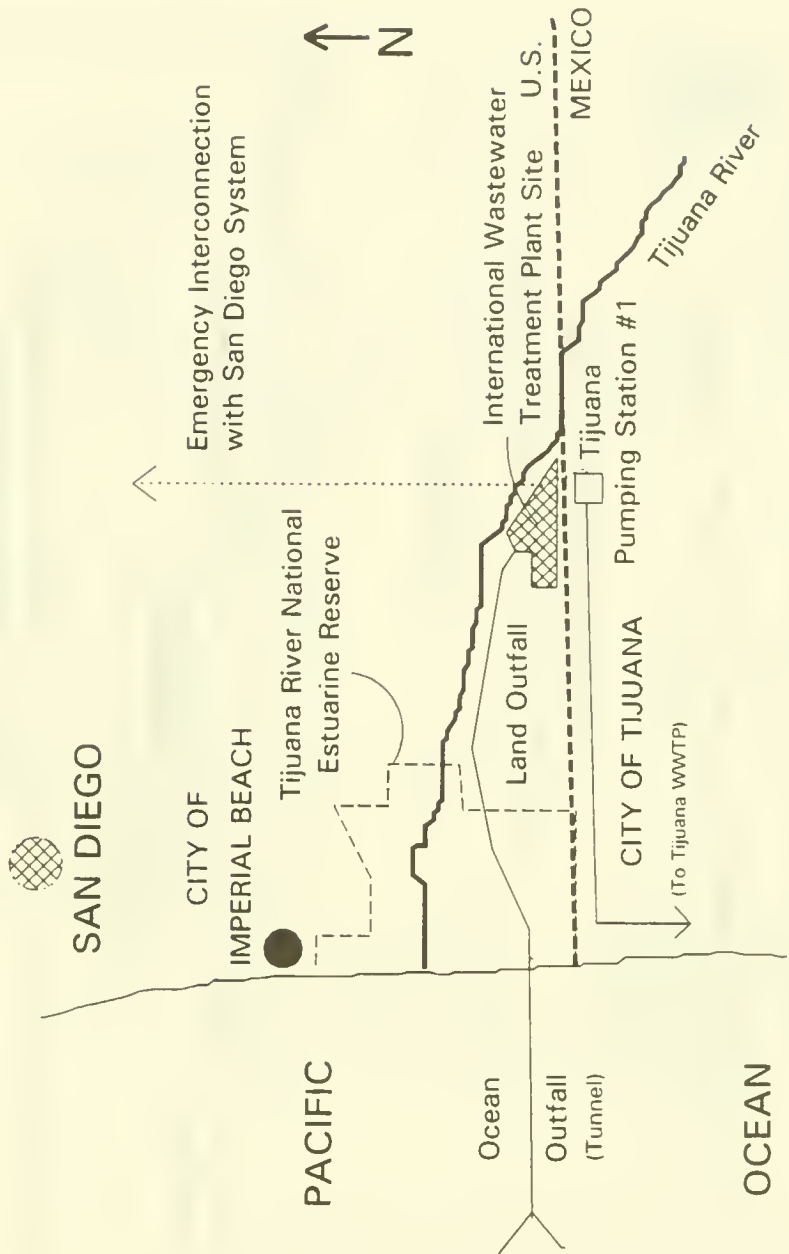
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U.S. ENVIRONMENTAL PROTECTION AGENCY

TIJUANA INTERNATIONAL WASTEWATER TREATMENT FACILITY

- Location -



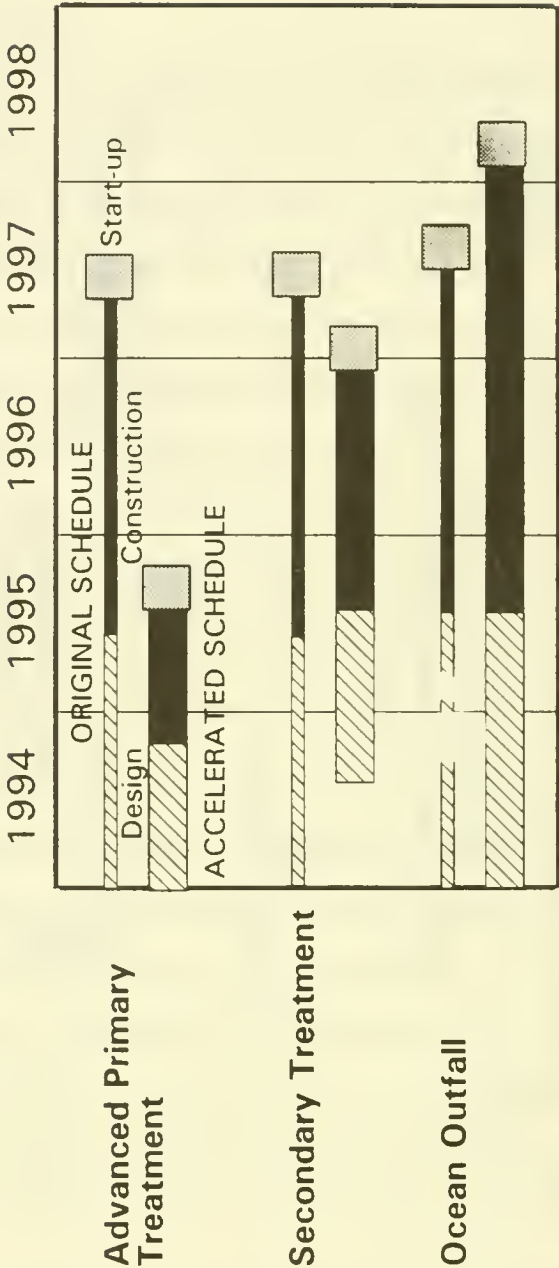
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U.S. ENVIRONMENTAL PROTECTION AGENCY



TIJUANA INTERNATIONAL
WASTEWATER TREATMENT FACILITY

- Schedule -





U.S. ENVIRONMENTAL PROTECTION AGENCY

TIJUANA INTERNATIONAL
WASTEWATER TREATMENT FACILITY

- Budget -

PROJECT COSTS (\$ Millions)		FUNDS AVAILABLE (\$ Millions)	
Pipe from Mexico	\$ 4	EPA:	\$ 239
Advanced Primary Treatment Facility (+ Sec. Trt. Des.)	\$124	IBWC:	\$ 4
Land Outfall (Already Built)	\$ 27	MEXICO:	\$ 16
Ocean Outfall	\$158	SAN DIEGO	\$ 73 **
Subtotal for Advanced Primary Stage	\$313	CALIFORNIA:	\$ 5
Secondary Treatment Facility Construction	\$ 70	TOTAL FUNDS AVAILABLE:	
TOTAL COST:		\$337 Million	
		Available for Secondary Treatment:	\$24 Million
		POTENTIAL SHORTFALL:	\$46 Million

* Conceptual Estimate; Costs May Change Depending on Final Design and Construction Bids

** Assumes San Diego pays 35% of Ocean Outfall costs

U.S. ENVIRONMENTAL PROTECTION AGENCY



TIJUANA INTERNATIONAL WASTEWATER TREATMENT FACILITY

- Recent Actions -

- | | |
|-------------|---|
| Sept, 1993: | ◀ Decided on Tunnel Outfall |
| Nov, 1993: | ◀ Decided on Modular, Fast-Track Approach |
| Feb, 1994: | ◀ Issued Final EIS |
| Mar, 1994: | ◀ Proposed CoE and San Diego as Construction Managers |
| Apr, 1994: | ◀ First Construction Bids Advertised |

STATEMENT OF ARTURO VALENZUELA
DEPUTY ASSISTANT SECRETARY FOR INTER-AMERICAN AFFAIRS
DEPARTMENT OF STATE
BEFORE THE
SUBCOMMITTEE ON INVESTIGATION AND OVERSIGHT
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION
U.S. HOUSE OF REPRESENTATIVES

April 13, 1994

Mr. Chairman, Members of the Committee, I am pleased to have the opportunity to address this Committee on an issue which is important to all of us and appreciate your continued interest in the matter. As you know, I began as Deputy Assistant Secretary of State for Inter-American Affairs in January 1994. My responsibilities include U.S.-Mexico relations and global issues such as environment, migration, human rights, and political development within the Inter-American region.

In the short time I have been in this position, I have become convinced of the seriousness of the problem of sewage from the rapidly growing city of Tijuana flowing onto U.S. lands and into U.S. waters in the San Diego area. I firmly believe that it is important to fulfill the agreement reached in November 1993 between the Environmental Protection Agency and the International Boundary and Water Commission (IBWC), with the concurrence of the State of California and the City of San Diego, to accelerate construction of the planned Tijuana International Wastewater Treatment Plant and the associated ocean outfall.

Today, in response to your request I would like to present the Department of State's views on management and technical issues associated with delays in the Tijuana project since 1990. I would also like to share with you our thoughts on how to avoid any further delays, and on the Department's plans to ensure that sufficient personnel and financial resources are available to complete the international treatment plant and outfall facilities by 1998. Finally, I will discuss the Department's role in overseeing the IBWC in general and the Tijuana international sewage project in particular.

DEPARTMENT OF STATE - IBWC RELATIONSHIP

I would like to begin by describing the IBWC and discussing its relationship to the Department of State. The other questions of interest to you flow from that relationship.

The Department of State and Mexican Secretariat of Foreign Relations, on behalf of the two governments, negotiated the

form, responsibilities, and authority of the modern-day IBWC in the Treaty for Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, also known as the 1944 Water Treaty. That Treaty reconstituted the International Boundary Commission, which had been established on a permanent basis in 1889, into the form the IBWC exists in today:

The IBWC consists of a U.S. Section and a Mexican Section, each headed by a Commissioner. The U.S. Section is headquartered in El Paso, Texas, and has 14 field offices located along the border, including one in San Ysidro, across from Tijuana.

The U.S. Section of the IBWC is not a constituent part of the Department and functions as an independent U.S. agency in many areas:

- o It has its own financial management and personnel systems, its own regulations, directives, and procedures.
- o The U.S. Section performs planning, design, contracting, operation and maintenance of construction projects, subject to federal laws and regulations, but quite independently of the Department of State.

Along with the Mexican Foreign Secretariat, the Department of State is responsible for:

- o Government-to-Government provisions of the 1944 Water Treaty;
- o Overseeing foreign policy-related activities of the commission; and
- o Reviewing and approving actions of the Commission when the U.S. and Mexican Sections function together as an international organization and when they deal with issues with foreign policy content.

The Department of State provides foreign policy guidance to the U.S. Section of the IBWC on a regular basis, while the U.S. IBWC Commissioner acts as the Department's technical advisor on boundary and water issues..

The U.S. Section's financial resources for salaries and expenses and for construction projects are provided through a separate segment of the Department's budget. The Department audits the U.S. Section's fiscal operations, most recently completing a successful audit of the U.S. Section's FY 1993 financial statements on February 4, 1994.

PROBLEMS RESOLVED BY THE IBWC

Historically, the IBWC has resolved serious boundary and water problems which had become of foreign policy concern. In accordance with its mandate under the 1944 Water Treaty, the Commission jointly divides the use of the international waters to the economic and social benefit of people in both countries. It has constructed and operates flood control and water conservation projects along the Rio Grande and Tijuana Rivers, including two major dams on the Rio Grande -- Falcon and Amistad. These projects have protected thousands of lives and provided water for valuable crops. The Commission also has built and maintains monuments on the land boundary and on international bridges.

It should be noted that IBWC Minute agreements are a unique and effective mechanism for developing commitments by the two governments to finance and construct needed engineering projects in the border area. These Minutes, negotiated between the two Commissioners, take the form of recommendations to the two governments for measures to resolve specific international boundary and water problems. Once reviewed and approved by the two governments, IBWC Minutes become binding international agreements and have traditionally been honored by both sides.

In recent years, the IBWC has contributed to the public health on both sides of the border by working with environmental agencies in both countries to resolve border sanitation problems, such as the one at Tijuana. Through the IBWC, the two governments have concluded a conceptual agreement on long-term measures needed to correct pollution in the New River at Mexicali-Calexico. The IBWC recently completed a major expansion of the international wastewater treatment plant which collects and treats sewage from both Nogales Arizona and Nogales, Sonora, and is now exploring ways to improve Mexican and U.S. sanitation infrastructure in that area, and to plan for another needed expansion of the treatment facilities.

Rapid progress has been made on an IBWC sanitation project at Nuevo Laredo, Mexico. IBWC Minute No. 279 was signed on August 28, 1989 establishing the U.S.-Mexican agreement on the joint Nuevo Laredo project. The U.S. federal contribution of \$20 million to this jointly-funded \$60 million project has been provided to IBWC directly through the Department of State's budget, as authorized by the Rio Grande Pollution Correction Act of 1987 (P.L. 100-865). Region VI of the EPA and the State of Texas (which is contributing \$2 million) are intimately involved in the Nuevo Laredo project.

U.S. participation in construction of sewage collector lines in Nuevo Laredo began immediately after Minute No. 279

was signed, and construction of the sewage treatment plant began in March 1993. The project's inauguration and partial operation is scheduled to begin in September 1994, and full operation is expected early in 1995. Completion of this project will make possible the treatment of up to 31 million gallons per day (gpd) of raw sewage, thus ending sewage flows from Nuevo Laredo directly into the Rio Grande.

DECISIONS ON THE TIJUANA PROJECT

The Department was involved in reviewing and approving the international solution to the Tijuana sewage problem. For example, it conducted the Circular 175 process to review the conceptual plan for the project and to approve the conclusion and signature of IBWC Minute No. 283. That Minute was signed on July 2, 1990.

IBWC projects are normally financed through the Department of State's budget, as is the case with the Nuevo Laredo project described above. In regard to the Tijuana project, Congress decided in the Water Quality Act of 1987 to authorize the EPA to provide up to \$239.4 million. The IBWC became responsible for developing and negotiating the international framework of the Tijuana project and for management of its technical design.

In accordance with usual practice in fulfilling domestic responsibilities, EPA delegated decisions on and funding of the project to the regional level. Accordingly, Region IX formed policy and technical committees which included representatives from the EPA, U.S. Section of the IBWC, the State of California, and the City of San Diego and which hold their many meetings in California.

The Department of State is not represented on these committees and does not participate in their decisions. The U.S. Commissioner and his representatives report on developments at these meetings to the Department, generally to the Director of the Office of Mexican Affairs through the IBWC special assistant located in that office.

The Department's financial role on the Tijuana sewage project is to channel through its budget to the IBWC some funding for portions of the project constructed in Mexico (\$4 million) and for an advance to Mexico for part of that country's contribution to the project (\$16 million), to be repaid by Mexico upon completion of the project.

We also review, from a foreign policy point of view, communications on the Tijuana project between the U.S. and Mexican IBWC Commissioners, most recently on questions related to the decision in November 1993 to accelerate the project.

ACCELERATION OF TIJUANA PROJECT

In response to states of emergency declared by California and San Diego last year, the Clinton Administration directed the EPA and the U.S. Section of the IBWC to accelerate construction of the Tijuana International Wastewater Project.

Following consultations with California and San Diego, EPA and IBWC agreed that upon completion of environmental review and design, the plant will be built in phases. The advanced primary treatment modules are expected to be ready in 1995 and the complete project, including an ocean outfall, is to be completed by 1998. The Department of State supported and warmly welcomed this decision to accelerate the Tijuana project. The Department agrees with the IBWC and the EPA that it is important to maintain this accelerated schedule.

HOW TO AVOID FURTHER DELAYS

In the Department's opinion, there are several steps that should be taken to avoid further delays:

- The accelerated program should be maintained.
- The State of California should quickly complete its technical analysis of alternative pond treatment systems.
- The U.S. Section of the IBWC should promptly conclude its analysis of its intensified measurements and estimates of future Tijuana sewage flows in order to verify whether or not the currently planned capacity of the international treatment plant is correct.
- Assuming that ongoing IBWC flow measurements and studies result in no major modifications in current flow estimates and projections, the participants in the project should avoid being sidetracked by further proposals to test or study new technologies.
- The project has been agreed upon with Mexico and, if the flow studies support currently planned capacity of the plant, it should move forward as quickly as possible to construction.
- Following up on recent Department of State - EPA conversations on the Tijuana project, the Department will explore an earlier USIBWC proposal to develop a Washington interagency working group on the Tijuana project if that would be useful to maintain momentum on its acceleration.

ENSURE SUFFICIENT PERSONNEL AND FINANCIAL RESOURCES

The U.S. Commissioner has already relocated a high-level engineer and additional personnel from U.S. Section headquarters in El Paso to its San Ysidro office, near San Diego, to accelerate the Tijuana project. The Department welcomed this move and will ask the U.S. Commissioner to take other similar steps in order to be sure that sufficient personnel are assigned to the Tijuana project.

The Department is proposing a reprogramming of funds from the IBWC construction account to the IBWC salaries and expenses account to enable the U.S. Section to retain personnel in employment to complete this and other projects.

By taking these steps, Department will make every effort to help the IBWC and EPA assure that primary treatment modules of the Tijuana International Wastewater Treatment Project are in operation by the end of 1995 and that the full project is completed by 1998.

ADDITIONS TO THE RECORD

THE CITY OF
IMPERIAL
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825 IMPERIAL BEACH BOULEVARD • IMPERIAL BEACH, CALIFORNIA 91932



April 27, 1994

Congressman Robert Borski, Chairman
Committee on Public Works and Transportation
Sub-Committee on Investigations and Oversight
U.S. House of Representatives
586 Federal House Office Building (Annex 2)
Washington, D.C. 20036

Dear Chairman Borski:

The City of Imperial Beach appreciates the opportunity to provide written testimony to your committee concerning the continued cross-border flow of raw sewage from Mexico into the United States and the proposed solution, the International Treatment Plant.

This is a matter of utmost urgency and concern to this City and City Council. For over fifty years, raw sewage from Mexico has run unabated across the border into the Tijuana River causing contamination of the Tijuana River Valley and the waters and beaches of this community. This endangers the health of our citizens and denies them the right to live in a pollution free environment. It has also denied visitors and residents of the San Diego Area the use of one of this region's most valuable resources.

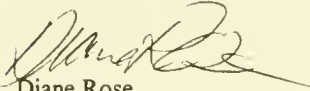
In 1993, our beach was quarantined and closed for 187 days, including 51 days during the height of our summer tourist season. On September 15, 1993 a state of local emergency was declared in the City because of the health and safety hazards created by upwards of fifteen million gallons of contaminants and raw sewage flowing daily across the international border. We know you will appreciate the negative and lasting social and economic impact that has been caused by years of contamination of our ocean waters and beaches by raw Mexican sewage. It will take years to erase the negative image and create a positive climate for business and tourism in this community.

The City strongly supports the construction of a treatment plant and ocean outfall in the Tijuana River Valley. We also fully support the recommendations made by the Director of the City of San Diego Metropolitan Wastewater Department in testimony before your committee on April 13,

Chairman Borski
Page 2

1994. In particular, we request your support in accelerating construction of the South Bay Outfall so that "interim measures" do not have to be used to dispose of the effluent from the plant; and that your influence be brought to bear to ensure completion of the improvements to the Tecate Wastewater Treatment Plant and Tijuana Pumping Station #1. The EPA and IBWC have been working on this problem since 1984. We now see some hope in sight for a solution and urge that all Federal, State and local resources be directed at completing the treatment plant by 1995 and accelerating the scheduled 1998 completion of the ocean outfall.

Sincerely and Respectfully,



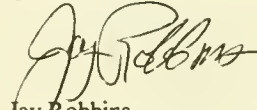
Diane Rose
Mayor Pro-Tem



Steve Haskins
Councilmember



Marti Goethe
Councilmember



Jay Robbins
Councilmember

CITIZENS REVOLTING AGAINST POLLUTION

David Gomez, President
1865 Cabrena Street
San Diego, CA 92154
Phone (619) 423-7201

March 3, 1994

Dear Sir:

Just to give you a little background on our organization which leads to the sewage problem in the Tijuana River! Primarily this organization was formed by citizens who live around the Tijuana River who just got fed up with the smell (horrendous) of raw sewage and hordes of mosquitoes biting our children and fearing some type of disease from those bites. We started out with a small amount of citizens (eighty) at our first meeting to set our plight to rid this problem and now have a thousand members!

We successfully attracted our politicians and the media to assist us in construction of a temporary diversion to be built in Tijuana to capture the sewage out of the river and to pipe it to the city of San Diego Metro system (which the city of San Diego agreed) and treated at Point Loma and there fore gotten rid of.

We realizes it was an emergency situation and was temporary until the International treatment plant that was slated to be built in 1995. This all happened in the fall of 1990. At that time Congressman Duncan Hunter appointed a Citizen's Task Force (which I was the chairman) to over see the construction of the temporary diversion and also the construction of the Treatment Plant. Commissioner Gunaji agreed to work with this task force and for three years we had good co-operation with the Commissioner.

Here are some of the problems we observed from 1990 until 1994.

- (1) Commissioner Gunaji promised the Mayor and council of San Diego in a council hearing on October 30th of 1990 that if San Diego would accept the sewage and treat it (temporary) he would build the sewage diversion in Tijuana and have it completed in thirty days. It was completed in September of 1992!
- (2) He promised that he would (publicly) have the Treatment plant built by 1995 and then he comes to San Diego. in the fall of 1993 to propose temporary ponds to be built on the U.S. side. In one hearing downtown San Diego he was blaming the city of San Diego for his failure to have the Treatment plant built by 1995 because of their commitment of participation in the Big Pipe was coming to a halt.

CITIZENS REVOLTING AGAINST POLLUTION

David Gomez, President
1865 Cabrera Street
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Phone (619) 423-7201

March 3, 1994

- (3) This task force was working real well with I.B.W.C. for three years then our Congressional district changed and Congressman Hunter moved out and then Congressman Filner was in charge of this district. As a citizen it was the difference between night and day as to what we saw of the boundary Commission working with Congressman Filner and our Task Force (which Congressman Filner kept, and I still chair). The task force was shunned and to this date have had little co-operation with I.B.W.C.. I.B.W.C. is not willing to extend information willingly. Commissioner Gunaji has been rude and shows no consideration for the citizens. We have seen our neighbors to the south (Mexico) become angry and for many years kept quiet when the U.S. media and the citizens kept saying it is Mexico's sewage let them take care of it. Mexico in the fall of 1993 finally after being accused of not caring came out and publicly stated to the media and U.S. citizens that it is their sewage and they were going to build a treatment plant in east Tijuana, BUT was persuaded by Commissioner Gunaji to let the U.S. build it on the American side in the Tijuana River Valley, and to have it built by 1995! They also claimed two other broken agreements (flood-channel-sewer piping in the Tijuana River Valley) was not their fault but of the U.S. Boundary and Water Commission.

We as citizens who live around the Tijuana River Valley who see our valley polluted and our beaches polluted are tired of this retirc and we do Thank our President who shows that he knows and cares about our health and has said he will help us rid the sewage out of the river. We know there is direction this year in 1994 to start the construction the feelings of both countries will clear as well as the sewage.

Thank you

President Citizen's Revolting
Against Pollution



A S L A

STATEMENT OF DENNIS Y. OTSUJI, FASLA
 OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS
 TO THE HOUSE COMMITTEE ON
 PUBLIC WORKS AND TRANSPORTATION
 SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT
 REGARDING THE CLEAN UP OF THE TIJUANA RIVER
 FOR THE RECORD, APRIL 13, 1994

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Mr. Chairman, I am Dennis Y. Otsuji, President-elect of the American Society of Landscape Architects (ASLA). I am principal of the San Diego-based landscape architecture firm ONA. ASLA represents over 10,000 landscape architects throughout the United States, Canada and Mexico. Our members are employed in a variety of sectors, including state, federal and local governments, private firms, and in the academic world.

An overriding concern of our membership, throughout, has become the issue of sustainable design. To match our concerns, many of our members have been working on new, green technologies that will build the sustainable cities of tomorrow today.

One of the technologies which we believe holds much promise for its role in sustainable development is known as constructed wetlands for wastewater treatment. A variety of little-known cases exist where constructed wetlands, using biological, rather than mechanical, processes are used to treat wastewater. The result: water quality as good or better than conventional plants; few malfunctions producing discharges of raw sewage, as happens in

conventional plants; lower cost (typically about 1/2 of conventional systems cost, but documented to be as low as 3%) to design and construct; lower cost to maintain (typically about 1/2 of conventional systems cost); and substantially lowered energy consumption in operation.

Landscape architects, engineers and biological scientists are working to develop these promising new technologies.

While we believe that this technology should receive wider application throughout the country, the case of the International Boundary and Water Commission (IBWC) plant in the Tijuana River Valley seems to us to offer one of the best opportunities for the US government itself to demonstrate the application of the environmental principles of sustainable design.

In any application of these principles, however, performance-based standards must be applied. Most importantly, we must ask: Can constructed wetlands perform up to the standards proposed for the IBWC project at Tijuana? Can it be designed and constructed in a timely manner? And, How would a constructed wetland system be configured in the Tijuana Valley?

According to its 1993 *Constructed Wetlands for Wastewater Treatment and Wildlife Habitat: 17 Case Studies*, the US EPA concluded: "The technical feasibility of implementing such projects has been clearly demonstrated by full-scale systems in various parts of the country." While many of the systems to date have been relatively small in capacity (up to 14 mgd), others that have more recently come on line have substantially increased capacity, up to 5

mgd. A plan undertaken for the Tijuana River Valley in 1989 by the California State Polytechnic University, Pomona, included a constructed wetland with a 22 mgd capacity that could be further expanded. Mr. Chairman, we have supplied a copy of this study for the record. I might add that it was the recipient of a 1990 ASLA National Professional Honor Award.

Not only can the constructed wetlands perform on par with conventional plants, they can often out-perform them. In the case of the Cal Poly Pomona study, for instance, the constructed wetland would have the capacity to process the wastewater through final treatment, unlike the IBWC design which would ship water treated only to the secondary stage out to sea. The current IBWC approach misses several environmental opportunities: opportunities for river recharge, protection from ocean pollution, reclamation of water (important to the Mexican government), and the opportunity to provide high quality wildlife habitat and open space to benefit the entire community.

ASLA believes that the constructed wetland treatment system can be constructed in an equivalent or faster time frame than conventional treatment facilities. The Cal Poly Pomona study, with initial design concepts, provides important base-line information and concepts that would speed along the remainder of the design process. Starting in 1988, with funding from the 1988 Proposition 70 parks bond initiative, the San Diego County department of Parks and Recreation began the purchase of lands in the valley with later intent of blending parks and resource conservation needs with wastewater treatment.

Much of the acreage required for a constructed wetland either has already come into local government hands or is planned for acquisition.

The configuration of a constructed wetland system has many options, and it is not our intent to favor one over another. The system could be built to operate from primary through final treatment on its own with no conventional primary facilities. It could be set up with ponds for primary treatment or with conventional primary treatment, providing secondary and final treatment. It could have additional conventional secondary treatment facilities as backup for peak flows or it could augment conventional secondary treatment.

ASLA's interest in the issue concerns more capturing the opportunity to do the best thing for the environment and the community than favoring a single option.

We are delighted to know that the EPA Regional office is looking at opportunities to build back into the project technologies that will enhance the environment, and we urge you, Mr. Chairman, to do everything in your power to foster this kind of thinking.

Written Testimony

Submitted
to the
House Public Works & Transportation
Investigation & Oversight Subcommittee
Hearing on Tijuana River Valley Clean Up
on
April 13, 1994

Prepared by:

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Briefing Paper on
International Boundary & Water Commission's
International Waste Water Treatment Plant

in the Tijuana River Valley,
San Diego County, California

April 4, 1994

US EPA and IBWC are designing and will soon begin construction on a 25 Million Gallon Per Day (MGD) conventional secondary international wastewater treatment plant (ITP) to treat Tijuana (Mexico)'s wastewater. The proposed ITP will cost at least \$150 million to construct and \$10-12 million annually to operate. The US taxpayer will bear at least 90% of these costs. Additionally, the ITP is being designed to accommodate a 75 MGD expansion to treat the future wastewater flow from Tijuana, all on the US side. There is every reason to believe the US taxpayer will bear a similar (90%) share of these costs, which will approach \$1 billion.

SOA is a 22 year old commercial design engineering firm specializing in natural biological, low cost, simple to operate waste water treatment systems. SOA has been invited by EPA & Cal EPA to submit an alternative consisting of a state-of-the-art pond based system called ADVANCED INTEGRATED POND SYSTEM (AIPS). SOA's design work for the World Bank fits the goals of simple to construct, simple to operate systems which can handle highly variable flows and strengths, including toxic slugs typical of developing countries such as Mexico.

An AIPS plant can be built quicker, cheaper and better than the proposed ITP. AIPS can be operational in 1995, first phase AND can be built for about \$25 million to construct and about \$ 3 million annually to operate AND provide better treatment more reliably.

The staff engineers of the California Water Resources Control Board and the US EPA who have taken the time to visit AIPS plants operating in California and to review the operating data, support our proposal. In fact, these experienced engineers have convinced their management to conduct an independent review of our proposal.

Additionally, US F&W supports the application of AIPS in this instance. As the lead agency responsible for the federally protected Tijuana River Valley habitat, US F&W recognize that AIPS will afford higher levels of treatment of the wastewater and a greater number of beneficial uses resulting from AIPS, but would not occur with the proposed design.

However, we are concerned that our proposal will be found deficient for two policy reasons: One reason is the potential for delays to construct an AIPS system; the second reason is the inability to accommodate an additional 75 MGD expansion on site.

We would respectfully request this opportunity to explain why "project delay" is not an issue, and why accommodating a 75 MGD expansion is not in the best interests of real solutions for this transborder problem and why our AIPS proposal should be implemented instead of the proposed mechanical conventional design.

SCHEDULE & DELAYS

We are very aware of concerns over project delays and project timing but believe that there are actions that can be implemented which can reliably achieve environmental protection in the spirit of win-win-win.

To repeat, the AIPS plan can meet or beat the schedule for the chemically assisted primary plant, or the follow on secondary treatment plant.

Project Timing

The first issue to consider is project timing. The sewage spills into the Tijuana River in 1993 were clearly preventable; Mexico can and must provide proper maintenance and operation of Tijuana's pumping plants. Certainly, Mexico is capable of maintaining pumping stations, but is not now so motivated. When Mexico programs the shut down of its pumps during peak flows, the fundamental problems in cooperatively solving these transborder environmental issues becomes abundantly apparent.

US EPA and State of California believe that a properly maintained Tijuana pump station can deliver all the Tijuana wastewater flows for the next several years back to Tijuana's own coastal treatment plant five miles south of the border. IBWC wants to immediately build a backup pump station in the US to deliver all interim flows back into Mexico.

However, because of the Tijuana sewage spills last year, the proposed ITP has been put on an accelerated schedule; the design was modified to provide primary treatment on a interim basis with limited discharge options. The interim plan is to construct a primary treatment plant by late 1995, and follow on with secondary treatment by 1996 or 1997. However, the ocean outfall will not be finished until 1998. The discharge options for the interim period (between 1995 and 1998) are limited to pump back to Mexico, discharge to the US surf zone, or live stream discharge to the Tijuana River (US side).

Given this information, it should be obvious that the IBWC recognizes that the solution to the immediate Tijuana sewage spills problem is making sure that Tijuana's wastewater gets into its own conveyance system and treatment system. The need to do something, even if it is not adequate or appropriate, is now driving the construction of a costly primary treatment plant on the US side with no good discharge options. The euphemism often referred to for this project is that "the train has left the station," and that there is no time to consider environmentally appropriate solutions which would save hundreds of millions of dollars.

But the IBWC pump back program, routing all of Tijuana's waste water back into its own conveyance and treatment plant does provide time for consideration of alternative solutions. With the pumpback program and rehabilitation of Tijuana's Pumping Plant One, Tijuana's sewage spills can be prevented, the California beaches can be opened this year, and the public health issues can be addressed now.

Additionally, an AIPS treatment plant could be operational by late 1995, the same time frame as the interim mechanical primary plant. This schedule assumes a full year for an environmental review with concurrent design and a six month construction period. And the result would be secondary treatment, not chemically assisted primary. The reason that AIPS can match the mechanical ITP schedule is because AIPS is made of earthen structures which are far simpler to design and construct than the conventional mechanical system.

FUTURE TREATMENT CAPACITY FOR MEXICO

The next issue is the accommodation of an additional 75 MGD of treatment capacity for Mexico. Our experience is that thus far Mexico had has no incentive to plan for its own wastewater treatment. We believe this to be poor public and poor fiscal policy for the US to promote and fund an all US side solution.

We should be working with Mexico to expand and upgrade Tijuana's existing coastal treatment plant and clearly constructing new treatment plants in Tijuana upstream of the ITP and the border. Indeed, with the IBWC pump back program, Tijuana's own plant needs to be rehabilitated. SOA's preliminary analysis is that the Tijuana plant could be retrofitted with AIPS such that the capacity would double to 40+ MGD for about \$ 10 million, and provide reliable secondary treatment.

Thus far, however, Tijuana has not been motivated to rehabilitate its own plant or system.

Treatment on the Mexican side, with benefits accruing to the Mexican side, at Mexican costs will provide incentives necessary to make the transborder waste water solutions viable over the short term and long term.

SOA's plan provides for a total of 64 MGD to be sited in the Tijuana River Valley, out of the flood plain; utilizing AIPS, for a total of about \$ 64 million. By locating treatment facilities on both sides of the border, a total of about 144 MGD could be treated for about \$ 100 million. The proposed IBWC ITP program would treat a total of 100 MGD all on the US side for about \$ 1 billion.

BETTER TREATMENT WITH AIPS

Finally, the issue of level of treatment and environmental protection needs to be addressed. Unlike US cities, Tijuana does not have an industrial pre-treatment and source control program. As a result, discharges of toxic materials to the sewers of Tijuana are commonplace. Such toxic discharges will go right through a chemically assisted primary plant, and will likely upset or even kill all of the microorganisms in a conventional secondary plant. Recovery from such an upset can take weeks or months, depending on the strength or characteristics of the toxics.

Toxic discharges are important when one realizes how industrialized Tijuana is and how fragile the ocean receiving waters are. The outfall will discharge into waters which are highly fished and used extensively for beneficial uses such as diving, bathing and surfing in Imperial Beach and up the California coast. The consequence of serious treatment plant malfunctions and the effect on the fragile ocean receiving waters are enormous, but avoidable.

An AIPS treatment plant, with its massive inventory of algae and other microorganisms and long detention time, will absorb and settle or metabolize the toxic discharges. The detention time for the conventional secondary mechanical plant is 2 to 4 to 6 hours, the detention time for an AIPS is 14+ days (336 hours), in this case. The 336 hour detention time provides enormous buffer capabilities to dilute and allow time to degrade the toxics.

Additionally, the fundamental design concepts of AIPS regarding solids is the opposite of conventional mechanical systems. AIPS is designed to minimize sludge production; conventional mechanical systems are designed to maximize bacterial growth and solids (sludge). AIPS has engineered systems which over almost 30 years of continuous operation have required no sludge removal. For this project, it is estimated that sludge will be removed every 10+ years. The proposed ITP will remove 7-9 truckloads daily of sludge at a high cost. Furthermore, the sludge from the conventional mechanical system will likely contain some of the toxics prevalent in the Tijuana wastewater. Sludge stabilized with lime, as proposed in the IBWC's ITP, is a detriment to sludge handling, land application and land fill disposal.

In summary, SOA offers a proposal that will save US citizens \$100 + million and \$8 million annually while providing, better and more reliable treatment performance (including no daily sludge handling) which will meet or beat the schedule for the currently proposed ITP. We also offer a perspective which would include incentives for Mexico and more responsibility on Mexico for future wastewater flows and therefore place less financial responsibility on US taxpayers. For what would be spent to construct a conventional 25 MGD plant, that same amount of dollars could be spent to construct 144 MGD to a higher level of treatment, more reliably, for 1/4 of the annual operating costs.

Given the finite resources of the US, and the extensive border problems, good public policy mandates that we not overspend, unnecessarily, in one area when there are other areas either unfunded or underfunded.

Further, the ITP for the Tijuana River Valley is an opportunity to set good public policy which sets the precedent for cooperative and sound environmental solutions along the border.



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